Targeting aging could reap huge financial rewards

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Treatments that target aging and extend healthy life expectancy could be worth trillions of dollars in economic gains, according to a study published in Nature Aging this week.

In recent times, growing emphasis has been placed on the concept of ‘healthy’ aging rather than focusing solely on life expectancy. Determining the economic value of increasing healthy life expectancy, or targeting aging in a general sense instead of combating specific diseases, is of great interest and promise.

Andrew Scott and colleagues created an economic model using existing US economic, health and demographic data to place a monetary value on the economic gains from longer life expectancy, improved health and changes in the rate at which we age. The authors sought to increase the accessibility of the model by applying four different test scenarios, illustrated by well-known fictional characters to aid the reader’s interpretation. These were Peter Pan, Wolverine, Dorian Gray and Struldbruggs (of the novel Gulliver's Travels), representing slowed aging, reversal of aging, longer health expectancy but shorter life expectancy and longer life expectancy but worsening health, respectively. Modeling revealed that interventions that target aging are valuable as they are likely to simultaneously increase health expectancy and life expectancy. The economic value of this is estimated at US$38 trillion per year of increased life, markedly higher than previously thought. They also find that the most valuable of all is to ensure healthspan matches lifespan and that the better we get at aging the more we will value further improvements.

As with all modeling studies, the specific value arrived at is highly sensitive to the input data and precise calibration of the model. Regardless of the difference between earlier estimates, the value of improvements in aging remains the same. From an economic perspective, this further supports the value of research into treatments that target aging as opposed to individual diseases.


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