WHY AGEING SHOULD BE CALLED A DISEASE

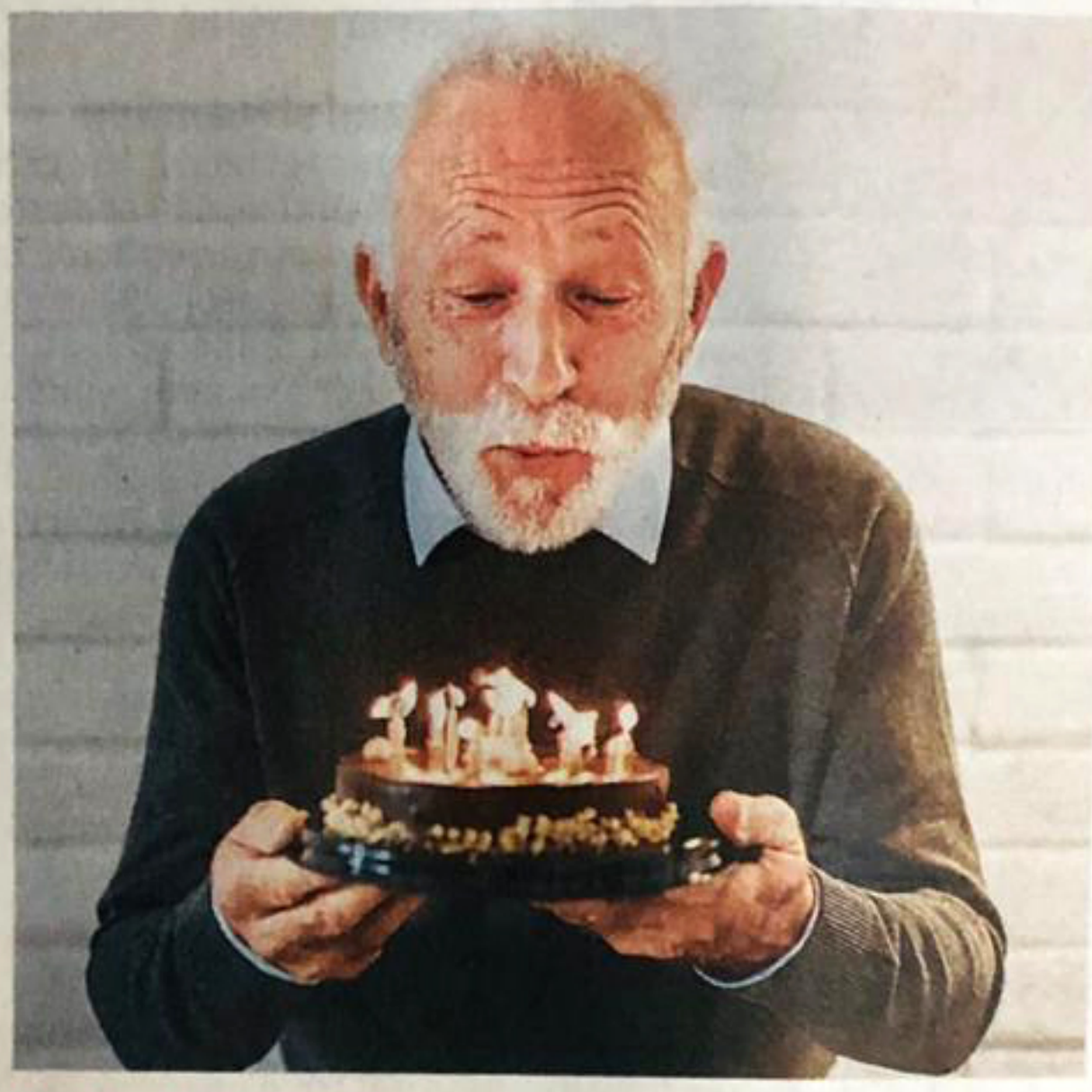
The World's Population Is Ageing; Recognising Old Age As A Disease Will Encourage Scientists And Investors To Find Treatments For It

You can dodge the taxman but old age and death spare no one. However, some scientists are rejecting this ancient wisdom now. They say ageing is not inevitable. It is just another disease that would be curable if governments and industry went after it with enough resources. They point to examples in nature that defy the "death is inevitable" rule. Many of North America's bristlecone pines, for instance, have been standing for more than 5,000 years. Some sea creatures also show signs of immortality.

Last year, some of these scientists unsuccessfully petitioned WHO to include ageing in its list of diseases. Those opposed to their view worry that declaring ageing a disease will increase the difficulties old people face. "Ageism is the biggest 'ism' we have today in the world... People are fired from work because they are old," says Nir Barzilai, director of the Institute for Aging Research at the Albert Einstein College of Medicine in New York.

Sven Bulterijs, co-founder of the Healthy Life Extension Society in Brussels, says it is a weak argument. "We don't say for cancer that it's insulting to call it a disease." He wants scientists to find a cure for ageing, but that's unlikely until ageing is recognised as a disease.

"If ageing were a treatable condition, the money would flow into research, innovation and drug development," says Harvard Medical School geneticist David Sinclair, one of the leading campaigners for declaring ageing a disease. As things stand now, "what pharmaceutical or biotech company would go after ageing as a condition if it doesn't exist?"



MANY HAPPY RETURNS: Even if death is inevitable, new treatments will enable everyone to live to 115 years, or whatever age nature has fixed as the upper limit for our species

Sinclair and others on his side say, instead of regarding physical frailty and dementia as diseases that strike in old age, we should consider them symptoms of a bigger disease called ageing. That's why, Sinclair says, "identifying the molecular mechanism and treatments of ageing should be an urgent priority."

While Sinclair, Barzilai, Bulterijs and others have been working to make old age a better time, official recognition of ageing as a disease will speed up research. Sinclair says it will also be key to increasing life expectancy, which has crossed 80 years in a few countries.

Although Barzilai does not consider ageing a disease, he says research is needed to ensure all of us can live to 115, or whatever age nature has fixed as the upper limit for our species. "So we have 35 years that we are not realising now," he says.

Critics say viewing ageing as a treatable disease takes away the incentive to live healthy. Why would people eat sensibly and exercise if a drug or therapy will repair the damage and let them live to 115 years, if not forever?

Nonetheless, countries like Japan and Singapore, where the population is ageing fast, are taking a keen interest in making old age healthier so that old people can support themselves. "If we don't do something about the dramatic increase in older people, and find ways to keep them healthy and functional, then we have a major quality-of-life issue and a major economic issue on our hands," says Brian Kennedy, director of Singapore's Centre for Healthy Ageing.

Long studies on mice, worms and other organisms have helped scientists find treatments to extend life and improve health in old age. Barzilai is leading a human trial targeting ageing with an old diabetes drug called metformin that has been found to protect against frailty, Alzheimer's and cancer in animals. It will be given to people aged 65-80 years, to see if it delays cancer, dementia, stroke, heart attacks and other problems in old age.

Another class of compounds that nudges damaged cells to self-destruct, so that the immune system can remove them, is also being studied. But the goal is to find the central mechanism of ageing and decline, which could make other treatments for age-related diseases unnecessary.

For more: MIT Technology Review