# Will humans ever be able to live forever?

Death remains a taboo subject; hard to discuss, understand and prepare for. But with constant breakthroughs in science and technology, a greater understanding of the human body it seems we are moving closer to a breakthrough and answer to the age-old question of can we live forever?

There is plenty of technology being created to prolong life, decrease ageing and actually stop death. Yes, as crazy as it seems, tech innovators who aren't satisfied with our average 90-year life spans for people born in the UK today are actively attempting to 'cure' death. As much as it seems like science fiction, new tech around the world is working towards getting people to live forever or at least, living for longer in a healthy body.

<u>Futurizon</u>, a company headed by UK-based futurologist Ian Pearson specialises in all things associated with the future. For a price, they offer articles, reports, presentations, workshops and other services to people and businesses interested in the future of industries, services and products pertaining to them.

Ian Pearson has been a futurologist, monitoring and predicting developments for a technology-driven future for 28 years and believes that humanity will achieve immortality by the year 2050. Some of Pearson's <u>inventions</u> that attempt to help with human health and ageing include a bath mat with embedded sensors for health monitoring and a bathroom mirror used for automated treatment and cosmetic recommendations.

## The anti-death tech race

However, it's going to take a lot more than that to make humans immortal. New tech from around the world is set on ending death and grappling with human's lifelong distress over receiving a visit from the Grim Reaper one day. Once upon a time, anti-ageing products seemed enough to put off thoughts about growing old and dying but now, anxiety around not being here anymore and advancements in technology have seen a new trend in innovative tech: solving the problem of death.

Cryonics, most notably provided by The <u>Cryonics Institute in Michigan</u> is the practice of submerging a freshly deceased body into liquid nitrogen temperatures in an attempt to preserve the body for a second chance at life in the future. For \$28,000, customers are taking a big leap of faith by keeping their dead body in freezing temperatures, dreaming happily about the future scientific and technological advances will allow them to be woken up.

Collecting and preserving stem cells may not promise living forever but it does provide a way of killing diseases before they kill us. Companies like <u>Cells4Life</u> offer the stem cell collection of babies and preserve the cells found in umbilical cord blood and tissue through cryopreservation. The cells can then be used for future treatments or clinical trials for either the family or the public. Stem cells help to regrow organs, heal wounds and potentially cure cancer.

Robert McIntyre and Michael McCanna are founders of San Francisco based company <u>Nectome</u> which aims to digitalise the brain and mind after death. For \$10,000, someone can have their brain conserved for revival in the future via preserving long-term memory – something that has never been done before and by the sounds of it, won't be achieved for a long time, if ever.

## Which pill will you take?

Something a little bit more realistic comes in the form of a pill that helps fight against the ageing process. Set to possibly be available in 5 to 12 years, the pill will be created from studying the science of senolytics. Senolytics is a branch of medicine that focuses on targeting senescent cells, which are faulty or 'zombie' cells that lead us to age and eventually die.

A 2011 trial on mice used a genetic trick to get rid of senescent cells in prematurely aged mice and a 2016 trial on naturally aged mice resulted in a fresh-faced and youthful mouse free of its senolytic cells. The promise of the pill lies in replicating the same successful results in humans, in a way which is safe to do so (the genetic trick used on the mice is unsafe for people.)

Another study, but this time smaller and conducted with humans resulted in subjects losing an average of 2.5 years from their biological ages after taking a number of drugs simultaneously. After taking a growth hormone and two diabetes medications, participants had their epigenetic clocks (a biochemical test used to measure age) measured by scientists who were shocked by how much the participants' ages had reversed. They hope to roll out the study to more people.

Perhaps more gimmicky is <u>HOCATT Ozone Sauna</u>, a titled bathtub which is the product of years of scientific research and based on ozone therapy which treats diseases and wounds through ozone gas. The therapy is said to help target unhealthy processes in the body and stop the growth of harmful bacteria, as well as provide a boost in cardiovascular health, pain relief and wrinkle reduction, all of which are associated with ageing.

## An online life after death?

In many ways, tech has a better chance of keeping our 'essence' alive as opposed to our actual bodies. Al and computing researcher Hossein Rahnama has brought an episode of Black Mirror to life through his <u>project</u> that attempts to use software agents as our digital heirs.

It uses a person's digital footprints to create an accurate digital model of that person which can then be manifested as a chatbot or a <u>voice-based assistant</u>. It aims to allow people to be in the same place at one time by using their digital self separately from their actual self.

<u>Hiroshi Ishiguro Laboratories</u> have created a mobile phone size teleoperated android which possesses a person's 'presence' allowing others to feel as if that person is in the room with them. The company has also created robot replicas of famous authors in Japan with the aim of them being educational tools for school children.

The race to be a market leader in a solution allowing people to live forever either physically or digitally is well and truly on, but is this an exciting forage into a future that lasts forever? Or is it all an industry built on hope for the impossible and fear of the inevitable that takes precious resources and minds away from helping create a better life for the lives that are already have?

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How to manage your digital legacy after you die

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