

Chapter 1 : Crocodiles Do Not Die - AweSci | Science Everyday

*Stop Dying and Live Forever: A Practical and Mystical Guide to Eternal Life [Stanley Spears] on theinnatdunvilla.com*  
*\*FREE\* shipping on qualifying offers. Death is a grave mistake.*

June 4, Immortal Illusions: In another epoch—truly, not that long ago—common knowledge held that the earth was the center of the universe and that fiery furnace we call the sun revolved around us. The earth was the greatest mover and shaker in the cosmos. But, of course, the center would not hold. Of more recent vintage is the hypothesis that the earth is actually just a great big creature: We—humans, ravenous animals—crawl around on the back of this great big creature, scraping at its tender skin. This broad claim is commonly called the Gaia Hypothesis—attributed to the British scientist James Lovelock, who advanced the theory in the s. Evidence for the possibility of infinite human life extension often called Radical Life Extension typically points to the fabulous new technologies under development in ecologically gluttonous regions such as the United States. The irony of such quests for human immortality is that they appear to cast a blind eye to the very conditions of possibility for human life itself. So while futurists claim that biological immortality has never looked so possible, the only planet known to sustain biological life has never looked more creaturely. Never has the hope for immortality looked so hubristic and foolish. In *Long for This World*, Jonathan Weiner ends with an homage to mortality—a celebration of finitude and its dreaded limits. Namely, Cave broadens the frame. The modest claim of his book is that the elusive promise of immortality has been the engine behind human achievement. The aim of this book, he declares at the beginning, is to investigate each of these narratives in order to determine whether any of them are feasible, or credible, today. He is willing to consider the lure of immortality. The book is full of good stories: We cross paths with ancients like Alexander the Great and Nefertiti; we learn about moderns like the scientist Linus Pauling an evangelist for the powers of the curative elixir we call Vitamin C ; and we pay a visit to Dr. Frankenstein and his creature. The wide-angle lens he uses to survey the history of human hopes for immortality contextualizes the apocalyptic promises that scientific immortalists are making today. While the science of immortality might appear promising because it breaks a phenomenon like aging down into bite-size chunks that seem—individually—rather easy to solve, Cave charges these questers with a kind of myopia. The line between the soul narrative and the resurrection narrative, for example, is extremely thin at points. Cave writes, for example, about modern resurrectionists, like the cryogenecists, who want to freeze their actual bodies with the hope that they might one day live again. Their immortal hopes, in other words, rest on the allegedly immaterial force of their minds—not unlike that of the soul. Cave is preparing to dismiss immortality—whole hog—all along, deeming none of the immortality narratives either credible or feasible. His ideas resonate with the existentialist philosophers. In one sense, he has my sympathies. These are texts that I love. More to the point, I find the quest to enshrine the human body in some deathless form twisted, and misguided. Not all illusions are equal. Some bear the quality of a nightmare a deathless human body, for example , but some are sweet tonics. What if, for example, it were possible for the big, wild planet that we live on to keep living and living and living? What if some kind of human creatures could keep crawling around on it—forever?

**Chapter 2 : Stanley Spears (Author of Stop dying and live forever)**

*For me, the real question is whether or not you'd want to live forever if the option were available. The finite nature of life is so core to the human experience that I can't even fathom how life would have meaning without death.*

All of my typos are on porpoise. We cling to the idea of eternity because it feels secure. I was taught, as were many of my peers, that life here on Earth was a test. Nothing mattered except getting into Heaven. Suffering was fine, as long as we ended up in our mansions in paradise after we died. Having no friends because we had to weed out all the cool ones who said dirty words? Dismissing all that inconvenient "scientific data" because our book of spells told us God made us "zap zap" style? We knew the truth. Bible said would happen Over the years I would finally succumb to the irresistible seduction of education, people with different opinions, and the ministry of common sense. Whether you believe in God, or whether you only believe in Oprah, I think we can all agree that Heaven Save it for the bloodbath -- I mean, "comments section. Conscious eternal existence, unconscious eternal existence, or reincarnation where you only remember one lifetime at a time. Which do you prefer? AKA "Where digital watches are trendy again. We all agree this place is supposed to be at least pleasant if not borderline orgasmic. And hey, while that sounds all good and reasonable at first, let us consider just what "eternity" would mean. Maybe some of us have been awake for a couple of days, maybe even more than that. Most of us start feeling really weird when we have stayed up all night. We all need closure on our days. We are supposed to have a beginning and an end. In an eternal Heaven scenario, we would have no need for sleep. It would be just one, super long, endless day. What would we be dreaming about? Because Heaven is about being content. Therein lies an interesting point to ponder. One thousand years would pass by. One million years would pass by. One billion, one trillion, one hundred trillion, ninety-nine trillion-trillion, and on and on and on. Try to perceive that quantity of time impossible, I know. Did you think "being done"? Did you think "Not existing anymore? Can you even imagine living for a few thousand years? Really, think about that. Maybe today you think you need more time to make things right. But who needs eternity? I actually need much less, of course. But give me this one thing! So, why would you want to live consciously forever? All those trillions of years that the universe existed before the earth was made? You were totally okay with it. AKA "Your ex really could be Hitler. If you perpetually reincarnate, you may indeed be more or less "stuck" in a loop of death and rebirth "forever. For example, you could possibly be stuck in a loop that is primarily happening during the 18th century over and over and over, but it could go on and on seemingly forever if you reincarnate into a new 18th century human or insect, or blade of grass, or American Flag each time. In that way, it is no different than living once and dying once. Wait, maybe atheists are just pissed off Buddhists? And if there is even one second between your multiple lives, that one second was most-likely an unconscious second. And when you do reincarnate, are you really you anymore? So why would you want to live a reboot-style life forever? But I do believe in Heaven. We can experience the miracle of that moment in the temporal way it was meant to be felt, eternity or not. It goes much further than the superficial themes of pleasure and reward. Heaven is when you carry your kid on your shoulders after a sports game on the way back to your car. Heaven is when you walk across the stage to take your diploma from the president of the university. Heaven is emerging from poverty, or lowering ladders for others to climb out. No, I do not believe what we seek is life eternal. We simply want to leave here on our terms, when we are good and ready. Are you ready to die? Just stop waiting for Heaven. Brett Gallaher is founder of weoccupyjesus. He resides in Chattanooga, Tennessee, the place they wrote that train song about. Once he shot a squirrel, but he felt really bad about it afterwards. Brett dreams of a world where atheists, theists, and everyone in between can unite under common goals and principles to make the world a better place.

*Stanley Spears is the author of Stop dying and live forever ( avg rating, 0 ratings, 0 reviews, published ).*

This mythical Trojan prince was so handsome that he bewitched Eos, the goddess of dawn. She successfully petitioned Zeus to grant Tithonus immortality so she could be with him forever. But Zeus interpreted her request literally. He lost his good looks and his faculties, and Eos lost her interest. She eventually shut him away in a room where he babbles endlessly. But as is often the case, truth turns out to be stranger than fiction. Plenty of species really are technically immortal. And unlike Tithonus, many are eternally youthful to boot. Paradoxical though it might seem, biologically immortal organisms are definitely mortal. They can be killed by a predator, a disease, or a catastrophic change in the environment such as an erupting volcano. But unlike humans, they rarely die simply because they get old. The bristlecone pine is a good example. Some of these North American trees are astonishingly old. They began growing years ago: An old bristlecone pine looks old. As far as external appearances go, the years have been about as kind to the bristlecone pines as they will have been to Tithonus. [View image of Bristlecone pines can live for thousands of years](#) Credit: The stem cells can apparently remain youthful and vigorous for millennia. Old trees are weather-beaten and gnarled, but at the cellular level they appear to be as youthful as they were when Troy was being built. No one really knows how the bristlecone pine does it. These are bits of the roots and shoots that are home to populations of stem cells, which generate new growth. The stem cells can apparently remain youthful and vigorous for millennia. He thinks a key factor might be a small population of cells in plant meristems called the "quiescent centre". That could be useful, because every time a cell divides it runs the risk of incorporating a dangerous mutation into its DNA. In his team identified a protein that seems to control activity in the quiescent centre of a plant called *Arabidopsis*. Similar proteins might help plants like the bristlecone pine avoid cellular ageing, allowing some of them to live for thousands of years. In essence, the cells of plants like *Arabidopsis* work and divide so quickly, their organs burn out before the meristem can replenish the damaged tissue. Ming the mollusc is the oldest verified solitary animal on record. By contrast, the biologically immortal plants live at a more measured pace. When it comes to living fast, plants generally have nothing on animals. That may be why animals rarely manage more than a few centuries before they die. However, the individual coral polyps may be only a few years old. Ming the mollusc is the oldest verified solitary animal on record. This ocean quahog was years old when biologists dredged it up from the coastal waters around Iceland in 1975, and promptly killed it. Ming died, but it might have been biologically immortal. In many animal cells, oxygen-containing molecules react with the membranes, generating small molecules that in turn damage other parts of the cell. Not all animals carry a nice convenient record of their age around with them. But a study found that ocean quahog cells carry membranes that are unusually resistant to this sort of damage. Ming might have lived so long because its cells, like the cells of bristlecone pine, aged at a negligible rate. Ming is the oldest animal with an age that can be verified. Not all animals carry a nice convenient record of their age around with them. Some of these might be even older than Ming. [View image of A green hydra \*Hydra viridissima\* or H.](#) That makes Hydra another case of biological immortality. Perhaps a few years is about all most manage before succumbing to threats like disease. Or perhaps Hydra can live for 10, years. Put simply, he says, it again comes down to stem cells. [View image of A group of brown hydras \*Hydra oligactis\*](#) Credit: This ability earned the Hydra its name, inspired by the mythological Hydra of Lerna, which could supposedly re-grow decapitated heads. It uses three distinct stem cell populations to replicate all of the various tissues that together form a fully functioning animal. Bosch and his colleagues have found that all three share one protein in common: FoxO might actually be a universal anti-ageing mechanism throughout the animal kingdom. Humans carry a few versions, and some variants are more common in people who live beyond their 100th birthday. But even year-old humans are not biologically immortal: But it is immortal. [View image of Immortal jellyfish can transform back into juveniles](#) Credit: When jellyfish sperm and egg come together they form a tiny larva. Instead it usually plonks down on a hard surface and turns into a soft-bodied branching structure called a polyp. It produces small free-swimming male or female jellyfish, which grow into adults and produce jellyfish sperm and eggs. Then the cycle begins again.

Most jellyfish can reverse their development at most stages during this complicated life cycle. But once they grow into a sexually mature adult, they lose the ability to turn back the clock. The immortal jellyfish disobeys this fundamental rule. Uniquely, even a sexually mature adult can revert to an immature polyp, " thus escaping death and achieving potential immortality ". View image of An immortal jellyfish *Turritopsis dohrnii*, previously T. It seems to involve a bizarre reversed version of the cellular processes that go on during metamorphosis ; the process by which juvenile caterpillars transform into adult butterflies. If stem cells do play a vital role in animal biological immortality, then animals that have to carry potent stem cells in order to clone themselves might often be immortal. On the other side of the coin, a reproductive strategy built around sex is almost invariably a one-way ticket to an early death. The American lobster is a good example. Most animals more or less stop growing when they reach sexual maturity, but not American lobsters. Shorter telomeres mean a shorter lifespan Both of these features suggest American lobsters retain an impressive ability to regenerate, even into advanced adulthood. That might explain why large specimens are estimated to be at least years old. The long chromosomes in animal cells have special tips on their ends, called telomeres, that help protect the DNA. Shorter telomeres mean a shorter lifespan. But American lobsters delay the inevitable using a telomere-lengthening enzyme called telomerase. A study revealed that this enzyme is found in all of their organs , where it presumably helps keep cells looking youthful for longer. This telomere trick looks like a useful way for any organism to delay ageing. Bosch says it might be unique to "higher" animals. Certainly, mammals also carry telomerases. In humans, they are active in HeLa cells: But in this case, the immortality is bad news. HeLa cells are so named because they were taken " without consent " from Henrietta Lacks , who died of cervical cancer in Our "germ line" cells, which give rise to eggs and sperm, are ageless Telomerase enzymes appear to help tumours grow and spread, which might be why mammals only use them in a few types of cell. HeLa cancer cells might be immortal, but their appearance cost Henrietta Lacks her life. Our "germ line" cells are ageless too. The concept of young babies might sound like a tautology: Ultimately she was put down at the relatively tender age of six because of a lung disease. There is perhaps a crumb of comfort here for anyone frightened of their own death "The seed of immortality for organisms like us is that, every so often, we have a mechanism that can reset the clock," says Thomas. Still, there is perhaps a crumb of comfort here for anyone frightened of their own death. In that sense, humanity is immortal.

Chapter 4 : LIVE FOREVER CHORDS by Oasis @ theinnatdunvilla.com

*DYING is an inevitable part of life and there is no way humans will be able to biologically live forever, scientists have confirmed.*

But the address itself speaks loud enough. Four-hundred-seventy University Avenue is located in the heart of a neighborhood that holds a special place in the lore of Silicon Valley start-up culture. Arrison has agreed to show me around her strange Californian world, populated with very wealthy, very smart dreamers, who share her certainty that a longevity revolution is on its way. The current system in healthcare is a whack-a-mole of your symptoms until you die. It addresses the diseases of aging, but not curing the underlying process behind aging itself. The healthcare system is doing a good job of helping people live longer and stronger lives, but aging is still a terminal condition. But few are complaining about the interest of the big-spending Silicon Valley crowd. In recent years, public institutions like the National Institutes of Health have been slow to commit any more than a token of their overall budgets to aging research. It is the private funders with big dreams who are galvanizing the field. In recent years, researchers have made undeniable strides in decoding the cellular processes that go awry as we age. The mainstream press has amplified the research into the second coming of Ponce de Leon. It also obscures the significant research that is being done to identify the mechanisms of aging. They have helped to shift the target of research from addressing diseases associated with getting older to the core processes of aging itself. According to scientists and insiders in aging research, the ingestion of private money into the field has been a culturally disruptive force with tremendous potential benefits. And the science is here to prove it. You wanted to have people respect what you did. Many believed natural selection was blind to mutations that affected the body after humans passed reproductive age, leading to an irreversible collapse of our bodies and minds. Funding to characterize this process, therefore, was often hard to come by, as medical companies are looking for quick payoffs, and public agencies are loath to back theoretical projects. Glenn Center for the Biological Mechanisms of Aging, a wing of the Glenn Foundation for Medical Research, one of the largest private funders of aging research. The embrace of private funders helped change that. Glenn made a fortune in finance and started the Glenn Foundation in Benzer was a pioneer in the characterization of genetic recombination, performed seminal work with fruit flies, and founded the field of behavioral genetics. It was spurred by his relationship with Josh Lederberg, a Nobel laureate and molecular biology pioneer. Lederberg made sure some of the money was used to help attract much needed gravitas to the field. I thought it was extremely shrewd what they did. In the s a small group of pioneers had begun applying the emerging tools of molecular biology and genetics to the science of aging. Two discoveries in particular electrified the field and helped inspire a new generation of longevity researchers. This state was associated with a much longer lifespan. Following earlier work by Michael Klass and Thomas Johnson, both of whom made important discoveries while at the University of Colorado, Ruvkun, in , discovered the key was a set of genes that regulated a pathway analogous to the insulin system in human beings—pathways that directly affect, and can slow down, metabolism and energy expenditure. In humans, insulin is the hormonal signal that cues our cells to absorb sugar and convert it to energy, which in turn affects a large number of other cellular processes, including the rate of cellular division, which many believe is directly related to aging. Another mutation known as *dafm* could reverse this impact. These discoveries had a profound impact on the field. In the s, notes Sierra, it was known, based on studies of identical twins, that about 30 percent of longevity could be attributed to genetics. But nobody believed that it was possible to find individual genes that could have such a profound effect. The process of aging itself might be manipulated. It became a more acceptable thing in the scientific community because scientists want to know mechanisms. There have been some tantalizing suggestions this might be a lever in humans. Studies of a rare population of human dwarfs in Ecuador who have mutations that produce low amount of human growth hormone HGH and insulin-like growth factor, found no diabetes, and far lower rates of cancer and strokes though a prevalence in alcoholism seemed to nullify gains in life expectancy. Pharmacologists had demonstrated that rapamycin, which is produced by bacteria, dramatically slows the growth of some kinds of cells placed next to it in a petri dish. As

a result, doctors have been using it as an immunosuppressant for transplant patients and to slow certain forms of cancer. But in , a consortium funded by the National Institute on Aging showed that rapamycin could extend the lives of mice equivalent to age 60 in humans by between 9 and 14 percent. In , Novartis, the private pharmaceutical giant, conducted a study on elderly humans using a compound derived from rapamycin. Since aging-related conditions progress far slower in humans than in mice, the drug company looked at immune response, which becomes less robust with age. After a course of treatment, the subjects were exposed to a flu vaccine. Once the rapamycin was out of their systems, their immune responses seemed to have been rejuvenated and were enhanced by 20 percent. It was the first evidence that compounds like rapamycin might slow aging in humans, too. He has been literally besieged by phone calls and emails from dog owners around the world who want to volunteer their pets. When exposed to stress, some cells enter this state, akin to becoming a zombie, where they stop dividing, instead of simply dying. Judith Campisi is a professor at the Buck Institute for Research on Aging, a privately funded institute whose money originates from the estate of an oil heiress, and Senior Scientist, Lawrence Berkeley National Laboratory. In , Campisi began publishing papers characterizing the effects of these cells. Senescent cells secrete molecular signaling agents that attract the immune system, which then releases damaging molecules like hydrogen peroxide and bleach to kill invading pathogens. Senescent cells also secrete growth factors and other molecules that aid cellular recovery and survival in times of short-term crisis. But Campisi and her colleagues helped demonstrate that they can have a wide array of negative consequences over the long term. The firm convinced the scientists to start a new company called Unity Biotech, which is developing senescent-cell-killing senolytics. Without the interest of ARCH Venture Partners—who approached Campisi and her colleagues—they would likely not be attempting to commercialize it. Yet the effort is generating widespread excitement in the field. What most of these compounds and pathways have in common is that they increase the energy the cells of the body are investing in maintenance, recycling, and stress resistance. Under optimal conditions, this is generally not a priority. Rather, our cells have evolved to maximize cellular reproduction, apparently at the expense of other functions. When our bodies sense that calories are scarce or the cell is under attack, the cellular focus shifts to survival—and these seem to be some of the levers the current crop of longevity researchers have found ways to tap. And the hunt for even more powerful biological levers is continuing. If we are ever to achieve extreme life extension, most agree, the most promising new insights are likely to emerge from the field of comparative evolutionary biology, experiments which examine clams that live for years, bowhead whales, and long-living humans. What is it about their genetics that allows them to outlast closely related species of similar size and genetic makeup? Harvard molecular biologist George Church is launching one such effort, and is one of the most prominent spokesmen for their potential. He has taken a list of genes identified as potentially related to human longevity by other researchers and narrowed it down to about . He has also received funding from Google and Thiel, though not specifically for age-related work. The bowhead whale, which lives to be over , and clams that live for years, are favorite subjects for aging researchers, seeking to plumb the genetic secrets of longevity. But some researchers worry that media hype about immortality is obscuring the reality of what is happening in the research labs. People in the field recognize a sort of a mad scramble by people to try and get some of that money. NIH Director Francis Collins has said publicly he believes the field of aging science is not yet advanced far enough to warrant any significant reordering of funds from specific diseases. Last year, the majority of federal research funds went to the study of individual diseases. Martin, a University of Washington biogerontologist and one of the leaders in the field, of the disparate institutes within NIH focusing on specific diseases. We need both approaches. Cancer is a disease of aging. Claudia Gravekamp, a prominent cancer immunologist at the Albert Einstein College of Medicine, has developed a method of genetically modifying the listeria bacteria so that it contains anti-cancer agents, which, when injected into a patient, selectively seek out, penetrate, and destroy cancer tumor cells. If she uses listeria to enter cancer tumor cells, and modifies them to carry DNA from tetanus or polio—antigens which most of us have been vaccinated against—the so called memory T-cells capable of fighting those diseases will then set to work attacking the tumor cells. This is possible because most individuals have memory T cells to these antigens through childhood vaccinations. They circulate in the blood for life and can be reactivated at all ages. Yet

Gravekamp failed to get funding. She has come to see the need for a focus on the overall process of aging, as well as better collaboration across the different agencies, by interacting directly with patients. She notes that a growing body of research suggests that treatments for some chronic diseases can accelerate the onset of age-related change. As childhood cancer survivors who have been treated under the age of 14, for instance, mature into young adulthood, many of them have a profile of chronic illness—cardiovascular disease, poor bone health, strokes—that looks more like that of 70-year-olds. We hope that it would lead to a way of understanding and achieving the goal that patients have in their mind, which is the longevity with quality process. Many in the field expect private investments in rapamycin and senescent-killing senolytics to pay off with large-scale human trials. At the same time, there are signs that researchers in the balkanized NIH are making progress toward cooperation. I think that is exciting. So you bet that those of us who are boomers are going to be pushing the pipeline, putting money in aging research, because we want it all figured out before we really fall into it. And then all of a sudden you feel your mortality and you feel the impact of the decline. And just in case they lose interest, consider this. In 2018, Mark Zuckerberg will turn 34. Adam Piore is the author of *The Body Builders: Inside the Science of the Engineered Human*, which will be published in February

Chapter 5 : Oasis - Live Forever Lyrics | MetroLyrics

*Raheem is dying to live forever. Dying To Live Forever is a new track mixtape from Toronto representative Raheem. The project was soundtracked by an array of producers, including but not.*

Advertisement Nobody wants to die. Only the most arrogant mind could honestly think that death could ever be abolished for good Your Brain On Ice: Your Brain On Ice: Do you want to live forever? Is it possible that one of those attempts might succeed? One breakthrough could change the human condition forever, and these are the technologies that may make it happen sooner rather than later. If the people developing these applications have anything to say about it, you might be surprised. Read More to the point where it now has numerous practical applications. How Does It Work? This particular application of 3D printer technology is called bioprinting. Scientists harvest human cells from biopsies or stem cells, then allow them to multiply in a petri dish. The resulting mixture, a sort of biological ink, is fed into a 3D printer, which is programmed to arrange different cell types, along with other materials, into a precise three-dimensional shape. Doctors hope that when placed in the body, these 3D-printed cells will integrate with existing tissues. However, progress is rapid. So how could these organs lead to eternal life? If you subscribe to the school of thought that says human mortality is simply the deterioration of individual organs over time, then the answer is equally simple: Your brain might get senile, but your body will stay firm and healthy. Easier said than done, of course. But logically speaking, it makes sense that this could indeed work. If anything, this path would be an interesting example of the Theseus Paradox. According to research results from early last year, that just might be true. The blood of the young could stop " or even reverse " the aging process in those who are old. When researchers inject blood from younger mice directly into the bloodstreams of older mice, they found out something big: Now, that team has shown this same factor can also rejuvenate muscle and the brain. This is the first demonstration of a rejuvenation factor that is naturally produced, declines with age, and reverses aging in multiple tissues. Independently, another team has found that simply injecting plasma from young mice into old mice can boost learning. Younger mice have it in abundance, but its presence tapers off with age. Impact on Human Lifespan Research in this area is still in infancy, but the results up to this point are remarkable enough that scientists are hopeful but cautious. Science While GDF11 may not itself be the answer to eternal youth, further study may unlock new discoveries regarding human aging mechanisms and how they can be paused or reversed. After all, what is immortality if not the ceasing of organic deterioration? Why do mice have a lifespan of 2 years, canaries have a lifespan of 15 years, but bats have a lifespan of 50 years? According to biochemist Cynthia Kenyon, the differentiating factor is somewhere in their genes " and this suggests that aging is determined by or at least influenced by one or more genes. This kind of genetic modification is called gene therapy. Through experimentation on roundworms *Caenorhabditis elegans* , Kenyon found that their lifespans more than doubled when one particular gene was damaged: This gene controls the integrity of DAF-2 receptors in cells, and this receptor is responsible for receiving a protein called insulin-like growth factor 1 IGF1. As it turns out, IGF1 is a hormone that influences childhood growth and aging, and damaging the receptor means interfering with this aging process. Rather, they aged half as quickly. Telomere Repair One major element of cellular aging is something called telomere shortening. When a cell divides, its DNA is not replicated perfectly from end to end. Because of this, strands of DNA also called chromosomes are shortened every time a cell undergoes division. These buffers are called telomeres. The good news is that young cells have an enzyme called telomerase, which adds onto telomeres that have been shortened. But not long ago, a new procedure was pioneered by researchers at Stanford University School of Medicine to artificially lengthen telomeres: This newfound research not only could help expand lifespans, but also assist with a variety of diseases that affect thousands. Afterwards, when the telomerase is depleted, the telomeres begin shrinking again. Whether this can be applied indefinitely to curb aging yet unknown. Read More are looking for ways to make this dream a reality. One particular compound called sirolimus, sometimes called rapamycin, was originally used as an immunosuppressor for things like organ transplants but was later found to extend lifespans in yeasts, worms, and mice. But sirolimus has many negative side effects, so it was never an ideal solution. It did fuel a

surge in anti-aging drug research, however, eventually leading to a recent discovery regarding everolimus. According to New Scientist: It is why older people are more susceptible to infections, and why they normally have a weaker response to vaccines. More money here could lead to more drug discoveries. Mind transfer is the notion of uploading your consciousness and memories from your brain to a computer. How Would It Work? As of now, there are two proposed methods for making this whole idea possible. The copy-and-transfer method involves scanning your entire brain and perfectly mapping every region down to the last electron, then replicating that state on a computational device. This is what most people imagine mind transfer to be. The gradual replacement method would, as its name says, gradually replace every neuron in your brain with a non-biological but perfect replacement. Slate describes it as follows: Most of our cells in our body are continually being replaced. You just replaced million of them in the course of reading the last sentence. The gradual introduction of non-biological systems into our bodies and brains will be just another example of the continual turnover of parts that comprise us. It will not alter the continuity of our identity any more than the natural replacement of our biological cells do. And in the coming years, we will continue on the path of the gradual replacement and augmentation scenario until ultimately most of our thinking will be in the cloud. Not a far-fetched idea considering the human brain is just a series of electrical impulses, but getting to that point of parity is the hard part. Of course, if we ever do reach that point, then everlasting life would be easy. In reality, almost all of our data is slowly being lost. Can we protect our media for future generations? Read More , then so would consciousness be. The philosophical issues would be harder to address. Would we still be human? In the case of cloning, which you would be the real you? Would we be much different from the Cylons in Battlestar Galactica? Would You Want to Live Forever? Do you think natural death will ever be overcome? If it were, would you want to take part in immortality? Let us know how you feel in the comments below! Stay informed by joining our newsletter!

**Chapter 6 : Want to Live Forever? 6 Technologies That Could Stop Aging**

*As I Lay Dying performing "Forever" at the House Of Blues in New Orleans. 7/7/ Video by me.*

Pinterest American biologist and technologist Craig Venter whose company Human Longevity Inc plans to create a database of a million human genome sequences by Evidence is now building that this bolder, age-delaying approach could work. Scientists have already successfully intervened in ageing in a variety of animal species and researchers say there is reason to believe it could be achieved in people. Reason for optimism comes after several different approaches have yielded promising results. Some existing drugs, such as the diabetes drug metformin, have serendipitously turned out to display age-defying effects, for example. Several drugs are in development that mimic the mechanisms that cause lab animals fed carefully calorie-restricted diets to live longer. Others copy the effects of genes that occur in long-lived people. One drug already in clinical trials is rapamycin, which is normally used to aid organ transplants and treat rare cancers. Other drugs set to be tested in humans are compounds inspired by resveratrol, a compound found in red wine. In , Sinclair published evidence that high doses of resveratrol extend the healthy lives of yeast cells. Although development has proved more complicated than first thought , GSK is planning a large clinical trial this year, says Sinclair. He is now working on another drug that has a different way of activating the same pathway. One of the more unusual approaches being tested is using blood from the young to reinvigorate the old. The idea was borne out in experiments which showed blood plasma from young mice restored mental capabilities of old mice. Tony Wyss-Coray, a researcher at Stanford leading the work, says that if it works he hopes to isolate factors in the blood that drive the effect and then try to make a drug that does a similar thing. James Kirkland, a researcher who studies ageing at the Mayo Clinic, says he knows of about 20 drugs now "more than six of which had been written up in scientific journals" that extended the lifespan or healthspan of mice. The aim is to begin tests in humans, but clinical studies of ageing are difficult because of the length of our lives, though there are ways around this such as testing the drugs against single conditions in elderly patients and looking for signs of improvements in other conditions at the same time. Quite what the first drug will be, and what it will do, is unclear. Ideally, you might take a single pill that would delay ageing in every part of your body. With treatments at such an early stage, guesses as to when they might arrive or how far they will stretch human longevity can only be that. Many researchers refuse to speculate. But Kirkland says the informal ambition in his field is to increase healthspan by two to three years in the next decade or more. The EU has an official goal of adding two years to healthspan by Beyond that, what effects these drugs might have on extending our healthy lives is even harder to predict. A recent report by UK Human Longevity Panel , a body of scientists convened by insurer Legal and General, based on interviews with leading figures in the field, said: Such ideas are just speculation for now. But John Troyer, who studies death and technology at the Centre for Death and Society at the University of Bath, says we need to take them seriously. Society will start to look very different. And, with ageing delayed, how many children are we talking about as being a normal family? Would knowing you had longer to live decrease your willingness to make the most of life? De Grey acknowledges potential practical challenges but cheerily says society would adapt, for example by having fewer children, and with people able to decide when to end their lives. There are pressing questions too about who would benefit if and when these interventions become available. The medical cost of caring for people in their twilight years would fall if they remained healthier longer, but delayed ageing will also mean more people draw pensions and state benefits. The far future aside, there are challenges for the new tech entrants. Aviator Charles Lindbergh tried to cheat death by devising ways to replace human organs with machines. In the quest to defeat ageing, even the fruits of failure may be bountiful. Tech billionaires who want to make death an elective Why might tech zillionaires choose to fund life extension research? Then there is money to be made in them there hills. But last, and what he thinks is the heart of the matter, is ideology. In a recent interview he identified three main ways to approach death. I think our society is dominated by people who are into denial or acceptance, and I prefer to fight it. Would Venter like to beat death? Though not from Silicon Valley himself, his ideas draw on those of Ray Kurzweil, a prominent futurist, who is director of engineering

at Google. Kurzweil has predicted that scientists will one day find a way to download human consciousness, no longer necessitating the need for our bodies.

### Chapter 7 : Live forever: Scientists say theyâ€™ll extend life â€˜well beyond â€™ | Science | The Guardian

*Mix - Liam Gallagher and Coldplay - Live Forever (One Love Manchester) YouTube Sacha Baron Cohen's Insane Liam Gallagher Story - CONAN on TBS - Duration: Team Coco 3,, views.*

Instead of aging biologically, they just keep on growing physically. But why do Crocodiles all over the world keep on dying? Senescence In reality, we do see them dying. So, it would be right to say that they have the potential to live forever. Senescence is a term used to indicate gradual deterioration of the body with age. Specifically, weakening of muscles, lowering mobility, poor sensory acuity and age-related diseases are signs of an animal showing senescence. Most animals exhibit Senescence. So, as we get older our deteriorated life parameters increase our risk of dying â€™ Humans exhibit Senescence; Crocodiles do not. Negligible Senescence But, here on Earth, living with us, are a few species that exhibit Negligible Senescence. Animals like these only die due to diseases, accidents or predators. In animals, sea urchins, lobsters, clams and hydras are some examples. Vertebrates like a few Tortoises, Turtles, Crocodiles, Alligators, Rougheye rock fish and Flounders have been not observed to have aged biologically. That is the reason we had a year old tortoise in the Kolkata zoo till the year Among trees, probably the best example for an individual would be one Methuselah tree , which has been living for years. Its exact whereabouts are kept a secret to save it from us. On the other hand, a colony of a single tree has been estimated to be around 80, years old. It is also the heaviest known organism. Tardigrades survive extreme conditions using a technique called cryptobiosis. They can die and literally come back to life. Back to Crocs Crocodiles have no such thing as old age. A 7-year-old crocodile is as good as a year-old one in terms of agility and other life parameters. Aging has no effect on them. Nature has a way of killing them. The way they die is out of starvation or if they contract a disease. They keep growing throughout their lifespan and they require more and more food. So, as they keep getting older they need a lot more food. When that amount of food is unavailable, they die from starvation. Still, see what this hunter shot in Australia in the year â€™ It was an 8. If you like this, please consider buying me a cup of coffee:

### Chapter 8 : Why You Really, Really Don't Want to Live Forever | HuffPost

*The idea of living forever might seem like one that's limited to fairy tales, particularly if you were born in , when the average life expectancy was 35 years [source: Sieberg]. Now, though, men in the U.S. have a life expectancy of 75 years; women, 80 [source: O'Neill ].*

### Chapter 9 : BBC - Earth - The animals and plants that can live forever

*Live for ever: Scientists say they'll soon extend life 'well beyond ' According to US social security data, he says, the probability of a year-old dying before their 26th birthday.*