

1

Editorials

LIFE: THE RACE AGAINST DEATH

Life: The Race against Death

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What is the most surprising fact about us as human beings? Daily we see numerous people dying naturally in hospitals, at home, on the road naturally, accidentally, or even by suicide or homicide. But we internally instinctively feel that we will never die. After seeing an event – death, we temporarily feel sad, but soon we forget to start living as usual with the felt instinct that we will not die. Eventually, we will all die one day, and that is eternal. And if you go through the mythology, it is full of divine blessings of GOD to underserved person humans and Inhuman. Such people make havoc on the Earth and, ultimately, God had to come on earth as Avatars to make the Earth get rid of such entities. Even upon all these facts, the desire for eternal life and cheating death will never be abolished in humankind. Because Human beings have achieved great brain power of consciousness over the process of evolution. Here, it is to be emphasized that evolutionary point of view death is essential to vacant the space for the next generation. So, they can get space, food, and water to survive.

It is important to note that in the last decade, longevity has increased significantly. In the early part of the past century, the average human survival was 25–45 years of age, while in the current era, it has increased to 60–80 years due to improvements in quality of life, education, and advancement in medical sciences and technology. Studies have found that in certain parts of the Earth, the so-called on blue zone, longevity is a natural phenomenon. Members of all such communities are alive for more than 80 years, and so many people are above 90 years of age. These findings led to two important points to consider, One is hereditary and another one is environmental and lifestyle factors. A significant number of people have got the benefits of longevity by altering lifestyles i.e., avoiding stress, meditation, dietary changes, and moderate physical activities. However, this will lead to slowing down the aging process, but not to be an eternity.

It is important to note that on the one hand incidences of suicide are increasing day by day, especially among young people, and it is anticipated that suicide will be the leading cause of death by 2050, and on the contrary, the desire of millionaires and multimillionaires are not just longevity but youthful life as well. Assuming one gets eternal life by carrying an aged body, then would that be the purpose of eternity? Their expectancy is not only eternity but eternity with youthfulness. And with advancements in medical sciences and technologies, this is the potential reality in the future, i.e., shortly. How is this possible? To understand this possibility, we have to go back to when our life begins. Do we mean since the birth of the baby? No, it is from the day of fertilization.

Biomedical researchers have found approximately forty to sixty genes responsible for aging. If you remove them from the body, the body will never age. Biomedical research has provided evidence in yeast-like small creatures/fungi. After the removal of 2–3 genes, their life span increased to ten times. Similar experiments on rats have witnessed similar results. Thence, just before fertilization if we remove some genes responsible for aging, the resultant offspring will likely have longevity with youthfulness. Fortunately, we have a technique called "Gene Editing" but due to some practical

1

limitations, this process needs further advancement. But this method of gene editing will prove a blessing for the treatment of persons suffering from sickle cell anemia or cystic fibrosis. Once the technique of gene editing is feasible, we can elongate the length of telomeres or even attach new pieces of telomeres to DNA for preserving and prolonging life.

Now let us think of another way to curb death. Ultimately, we die because of some organ failure. For practical purposes one single individual usually has one organ failed, and we transplant the organ, but so often leads to rejection. But we prepare an organ from an individual's stem cell or their embryonic stem cell, and the problem of rejection is out of the question. This technology is on its way. Once available for clinical purposes, no one has to worry about finding compatible organ donors or organ rejection and live a normal long healthy life. Currently, no method is available for eternal youthful life, but might be available for a new forthcoming generation. And some more alternatives will be available in the next century or next millennium. But what about this waiting period? For this problem, Cryo technology may be considered to be helpful. Today we preserve food, fruits, meat, and vegetable in the fridge or deep fridge. But the problem of freezing the human body is different. When we freeze the human body, Ice crystals are formed in intracellular fluid. And when we unfreeze, the intracellular structure is distorted. Though the unfrozen food is edible, living cells do not revive and don't reach their pre-living status. And the body remains dead. Certain hibernating animals can survive under unfrozen conditions, but the human body can not revive. A new method is under development to solve this issue of ice crystals. This method is called Vitrification. Such vitrified body or tissue will not undergo ice crystallization, and the body may revive. If this method is successful, we can have our bodies get vitrified and frozen. Now, when unfrozen and revive after a century or millennium, the body will wake up like a newborn baby and enjoy the available technology and live in the new era.

Though there are a lot of legal and ethical issues, Cloning is an alternative to eternity with youthful life. A cloned person born out of you is 100% genetically you. However, the limitation is that the person who grows up will be a different person, with a different personality and with independent consciousness. Here we come to the new point. We wish to survive ourselves with the same identity and consciousness. If you try to go into your deeper being, you will find that you are observing yourself growing from a small little body as young as 4, 5, or 6 years old to today. You have grown in all dimensions, but inside you, your conscious being of yourself remains the same. We are attached to our conscious self, Little philosophical but bitter truth. We want to maintain this consciousness for an eternity. Now we have concluded that what we want when we say we want eternal life.

As we are attached to our consciousness, so now, there's a new option. There is new technology developing rapidly, i.e., brain-computer interphase. With the help of artificial intelligence, the brain-computer interphase is soon bringing novel realities. Software engineers and neuroscientists are trying to develop a neural linkage between the brain and the computer. Scientists are on their way to creating the connection of the brain nerve fibers to the computers. And in the future, our memory, our consciousness, and our thoughts are going to be digitalized. In other words, our brains are going to be digitalized. If, we can develop genome mapping, i.e., complete DNA mapping of 46 human chromosomes. Now scientists are working on mapping and digitization of the brain, i.e., **Connectome**. It will be a comprehensive map of neural connections in the brain.

An organism's nervous system is made up of neurons that communicate through synapses. A Connectome is constructed by tracing the neuron in a nervous system and mapping where neurons are connected through synapses. Once the Connectome project will be successful, we will be in a position to save our digital copy in a computer as a small folder that can be available to assess whenever needed will have interacted. We can have more copies that can be uploaded as artificial intelligence in Robots. So we will have our brain, consciousness, memory, and thought. With all, unlimited access to input and output; will be able to create multiple copies of our Connectome and save them to any supporting devices and transfer them as a computer file. Astrophysicists believe

that our current biological form is not fit to survive in space and on any unknown planets or stars, but this Humanoid Robotic form will be able to survive in any unusual abnormal environment. So we will be truly eternal without a body. This is the most awaited merger of biotechnology and information technology.

Once one latest Artificially intelligent Robots was asked "Do you need a body?". The robot refused and said, "No, I do not need the body." The second question asked was, "Do humans need a body?" The answer was, "Yes, Humans need the body as humans have emotions, and to express emotion humans need the body."

"Are we ready to live eternal life without the body?" In our proposed model of a Humanoid Robot, there are so many questions that are still to be answered including emotions, and ethics. Thus, our eternal life with our bodies will remain a dream. According to physics, the 2nd law of thermodynamics, "Every matter in this universe is going from order to disorder." Even mega structures the sun, the earth, and galaxies are going to collapse and vanish after some million years. So, what about our eternity of bodies? Meanwhile, we have to accept our eternity in a computer as a file/folder without the body. This type of electromagnetic existence is not unreal. After our death, we exist in the brains of family members, our nears and dears, in the brain of our friends in the form of memories. Yes, today this is only hoping i.e., we will eternally be in the brain of our friends, and family members in form of love-hatred & good-bad memories. Whether you believe it or not, this is a real answer to the eternity of life. Otherwise, the question of eternity is not how, but eternity why? Why we should live forever. Evolutionary biologists concluded that our purpose of life is to reproduce, i.e., survive species and mutate to get a strong pedigree. In this context, longevity or eternity does not serve any purpose. Over the million years of evolution, we have received consciousness. This is our development in this universe.

The true purpose of life is to grow, grow consciousness, and in this context, the quote of Shree Aurobindo meant a consciousness that possesses the highest truth in a direct perception and self-experience; to become, to be the Highest that we know is the sign that we know.

For the individual to arrive at the divine universality and supreme infinity, live in it, possess it, to be, know, feel and express that one in all his being, consciousness, energy, the delight of being is what the ancient seers of the Veda meant by the Knowledge.

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