

## *Newsletter*

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### **Recent Updates in the Medical Industry**

Creation of something new has never been so easy but just as the famous adage goes- 'Necessity is the Mother of Invention', helped to change the Human Brain, not just with newer possibilities but the Brain itself. Indeed ! We started off with a basic physical examination of Human Body but now we are capable of dealing with its psychological aspect too. The nexus of medical science, technology and thriving urge to develop humanity has brought us

to the threshold of something 'bizarre'.

#### **INTRODUCTION**

Do you think plantation of microchips as shown in fictional movies is a reality? Well, then how about calling it a non-fiction? Because that is an actuality! Man alone has the capacity to create something which is technologically outlandish. He has started washing each and every aspect of his life with technology, even his own body.

## Current News Features

### 1. SUPERELASTIC NANO CHIPS

Researchers from Basque Country University in Spain have, for the first time, successfully explored **super-elastic alloys of nanometric sizes**. The Professors of this field name this discovery as extraordinary superelastic behavior on a small size. Properties of elasticity have been known for macro materials for a long time now, but we were unknown to elastic and superelastic properties of a micro material that is materials with diameters in few microns and nanometers. Since flexible electronics is very much in, in the form of displays, garments and shoes, this revolutionary event in the field of Microsystems will build 'Lab on a chip' design

strategy to release and regulate a substance in Human Body after its implantation.

### 2. ROBOTIC FOREARM

In a development by researchers at Ulsan National institute of Science and Technology, South Korea, robotics is at the rescue of stroke survivors. Stroke survivors, generally, suffer muscular damage due to sudden loss of brain function and the recovery pace is largely dependent on proper physiotherapy. Estimated 1,50,000 people die from it each year. Using impedance model, a team has characterized a three degree of freedom forearm and wrist impedance a **robotic tool** is developed to assess muscle activity and dysfunction of movement of stroke survivors.

### 3. AID WITH FMRI

Other such technological bizarre, published in the 'Neuron,2017' is the **Functional Magnetic Resonance Imaging** or Brain imaging, scientists are now able to quantify and relate the effect of empathy and compassion on brain patterns, with the person's behavior. The research is oriented towards finding the source of 'caring.' This has been also helpful in strengthening connections with brains of people suffering from psychosis.

#### 4. GENETICS

A large group of scientists around the world are researching around the inception of universe. And research of equal magnitude is even oriented towards the inception of life or the process of evolution on earth. Darwin gave and explained the theory of evolution, but very less was

studied about the variation in the evolution. Researchers from the University of Sydney, Maharajan and Ferenci, have successfully showed the **non uniformity of variations in evolution** relative to variable surroundings or environment. They have explored that the 16 types of environment specific genetic mutations are non uniform in their environmental variation.

#### 5. LIFE EXTENTIONISTS

We are interested in the inception of universe and evolution of life. There is something else, which has caught our interest at some or the other point of time. It is **aging**. Children ask their parents if anyone on the earth can live till infinity. Well, there is a group of researchers confirming that targeting certain cells in the body, can be used to treat joint diseases

which are degenerative in nature and age related. Dr. Kim Chaekyu and his team at John Hopkins University School of Medicine have successfully shown that removal of old senescent cells from joints can be a solution to age-related problems.

## CONCLUSION

With such upcoming discoveries, we are not just challenging our limits but also providing a sense of security to the health of millions. We are now either successful in diagnosing a disease before its genesis or curing it unequivocally after blight.

## REFERENCES

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