

GIVE IT A TRY, WHISPERED THE HEART...!!

SUMATHI S NAIR
nairsumathi2567@gmail.com

V SUBHA RAGA
vsubharaga@gmail.com

R KARTHIKA CHANDRAN
prakar2310@gmail.com

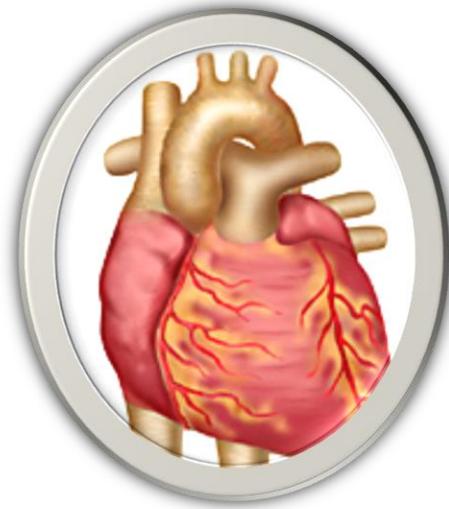
ABSTRACT

Just like human heart, another discovery in the milestone from the year 2005 by cardiac Reacher doris Taylor and submitted a dead named Ghost Heart. Hr discovery mainly says a rat heart fused with rat cells newly born incubates in a bioreactor at the university of Minnesota. Another passive way given by her discovery for the heart transplantation. If the whole project is successful then there will be immune way of improvement in this field.

1. INTRODUCTION

She rinsed the heart of the rat in the detergent solution waited and watched until all the cells was washed away remained only skeleton of tissue translucent as wax paper – Ghost Heart as Taylor named it. After this process steam cells was taken from the new born rat was injected in the ghost heart waited for four hole days then new life started in the heart creating home for themselves was astonishing. Little area in the heart “started to beat”, says the Taylor. “by eight-day whole heart started functioning success was a yes. The experiment was reported in the nature of medicine, marked watershed moment first time cardiac created functioning heart in the lab.

62 million people are suffering from the heart diseases. Major in heart diseases is coronary artery diseases a from of heart attack where men above 45 and women above 55are maximum affected due to living society , stress , food habits etc.



Many people are suffering from the congestive heart failure is the death of segment of heart muscle caused by a loss of blood supply . the blood is usually cut off when an artery supplying the heart muscle is blocked by a blood clot . 60 percent of patients die within five years of diagnosis. Unlike other mechanical circulatory support (MCS) devices, such as left ventricular assist devices (VADS) that assist the left side of the falling heart and syn cardia TAH replaces both the left and right sides of the failing heart which are artificial made by special biocompatible

plastic, Taylor was more realistic (natural) by performing experiment in the lab by natural tissue or protein present in the human heart . a recellularized heart like Taylor's represents the first real hope for a cure and recently brought it one-step closer to reality by devising a way to populate it with blood vessels . There are lot of dust & bacteria in the field of biology some people say can grown heart from the scratch in 10 years , which is ridiculous. But Dr Taylor's approach more realistic because it's so simple and elegant.

She takes the existing death heart which is caused by brain tube (or) brain dead and takes away all the structural issues in the brain heart by using cleaner only the extra cellular tissues remains in the heart is almost clear don't contain any kind of diseases (or) bacteria (or) virus particles in it. The next step is to infuse the heart with a mix of mature and progenitor cardiac cells; which can come from a patient's own body to ensure compatibility. Incredibly, for reasons the team still doesn't understand, the cells seem to know how to divide and proliferate into cardiac tissue inside the empty-shell hearts. Soon after she published her rat-heart results, she started working on making recellularized pig -hearts-closer in size

and shape to the human equipment -that could pump blood and generate electrical impulses. Our hope is that some day we'll be able to take your own cells into the matrix to make an organ that matches your," Taylor says. Before a reliable human donor heart can be grown from a matrix, however, scientists must coax it to do more than just beat "A heart isn't just a muscle. It also needs arteries and other tissues," explains cardiologist Robert Bonow of North-western University. 'Doris Taylor has replaced the motor inside the chassis, so to speak , but she's got to find a way to get the other parts in there too.'

CONCLUSION

Taylor is focused on starting human clinical trials in the near future ; she envisions a transplantable organ becoming available in "years , not decades." This project is the most advanced method and second finest in filed off science. The congestive heart failure and death of heart attack will be decreased in the world after this . The main advantages with ghost heart is that they are not rejected by body's immune system. The body doesn't recognise them as "foreign" and attack in the same way it does with living tissues.