Gene Editing Might Be A Powerful Tool To Conquer Cervical Cancer

Australian researchers claimed that they have found a cure for cervical cancer in mice using gene-editing technology, which is a big breakthrough for gene therapy, and Creative Biolabs spares no effort in assisting global scientists to make greater progress.

Earlier this month, scientists from Griffiths University's Menzies Health Institute Queensland used gene editing technology called CRISPR-Cas9 to cure the mice suffering from cervical cancer and they believe that the same technology could be used to treat cervical cancer in humans.

Human papillomavirus (HPV) infection is the cause of almost all cases of cervical cancer. The virus integrates two specific genes called E6 and E7 into the human genome and continues to drive and sustain the cancer, which makes these oncogenes an ideal target for CRISPR.

In this research, the CRISPR/Cas9 machinery was packaged into nanoparticles that can edit E7 and injected into mice with HPV-16 cervical cancer cells. After receiving 3 injections, the mice survived with their tumor growth halted.

Another comparative test was about 2 groups of mice transplanted with HPV-18. One group received 3 injections with nanoparticles targeting the E7 gene, while the other received 7. The result showed that tumor growth was halted but resumed again in the first group, while the tumors were completely cleared in the second group.

The treated mice in the research showed no side effect such as inflammation. However, there may be other gene changes that haven't been measured yet, and it remains unclear if it will act the same in humans. The scientists are now working towards human trials of gene therapy in the next five years.

Cancer gene therapy remains a hot issue in all cancer therapies and a great number of scientists and researches are trying to figure out the secret of genome. Creative Biolabs is one of the world leading companies providing one-stop gene therapy development services to scientists at home and abroad.

Based on years of research and self-developed GTOncoTM platform, Creative Biolabs provides different types of recombinant virus that can be used for gene therapy research, such as recombinant lentivirus, recombinant adenovirus and recombinant adeno-associated virus. These products are of high transfection efficiency, superior level of gene expression and outstanding packaging capacity of gene delivery covering a wide range of host cells.

A full scale of gene therapy services is also the highlight of Creative Biolabs where a team of experienced experts of Ph.D. level is ready to help clients in delivery systems development for gene therapy, gene editing services, gene therapy solutions, potency tests for gene therapy products, safety and toxicology analysis, GTOncoTM immune-oncology assay services, and gene therapy for inherited or acquired diseases. Customized services with a quick turnaround

and a comparatively low price are also included.

Although gene therapy is constantly advancing with a promising future, there are still a lot of obstacles to overcome. With in-depth scientific and technical expertise in gene therapy, Creative Biolabs hopes to collaborate with worldwide scientists to unveil the mystery of gene therapy.