

Short Letter about Genome Editing and Synthetic Virus

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Abbreviations

RNA: Ribonucleic Acid; DNA: Deoxyribonucleic Acid; COVID 19: Name given by WHO to the disease caused by the SARS-COV-2 (2019-NCoV) Virus

By 2002, three microbiologists reported the fake union of poliovirus, inciting universal shock and concern that other dangerous infections may moreover be made. A long time afterward, they see back on their work and examine morals, security and the longer term of manufactured science. Newer technology, DNA synthesis, has now give us the ability to write DNA It is clear that we presently have the innovation for building an engineered genome through DNA amalgamation or genome altering, the Manufactured genome basically had the same engineering and grouping as the wild sort strain and by phenotype investigation of the modern strain it was vague in appearance and development to the initial wild-type strain.

An overview about possibility of using synthetic biology in producing new synthetic virus.

In 2002, three microbiologists reported the fake union of poliovirus, inciting universal shock and concern that other dangerous infections may moreover be made. A long time afterward, they see back on their work and examine morals, security and the longer term of manufactured science [11].

There are point we ought to took approximately one of them is that RNA infection is the foremost basic organism which will simple to be engineered or to be mutated number of other key have been carried out within the field of originator genomes of fair a number of kb and so obviously the primary manufactured genomes produces were viral. The poliovirus in 2002 and the bacteriophage in 2003. In 2006 an *E. coli* genome altering think about was fruitful within the stepwise diminishment of the genome by 15% without influencing the fitness of strain within the lab [1-3].

In 2013 genome altering innovation has utilized moreover utilized to recode the *E. coli* genome coming about in a free code which can then be used to incorporate non-natural amino acid and other modification into protein.

Also, in case of eukaryotes yeast chromosome was synthetized in 2014. For numerous a long times, scientist have been able to alter genomes. however, until 2009 most of the advances utilized were regularly for a restricted no. species and have limitations, lie use of antibiotic resistance marker, this kind of editing has been used for many years to great success but the most powerful genome editing is that new technique including CRISPER-Cas R, where employing nuclease, which binds guide RNA. Since it introduces no foreign genetic elements into the host genome, it is regarded as safe and different from genetic modification (GM). So distant, most applications of the CRISPR strategy were applied in Lactic acid bacteria or yeast [4-10]. Finally, according to CDC (Center for Disease control and prevention) "mRNA immunizations have been considered some time recently for flu, Zika, rabies, and cytomegalovirus (CMV). As before long as the

fundamental data approximately the infection that causes COVID-19 was accessible, researchers started planning the mRNA informational for cells to construct the special spike protein into an mRNA immunization” so by technique like this virus may be prepared. Agreeing with Zimmerman [12] also there are other type of war, fortunately biological war use cheap technology without an ethical reference.

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