

mRNA- a medical marvel

mRNA (messenger ribonucleic acid) technology was invented long back and was abandoned due to lack of support from funding agencies. Dr.Katalin Kariko, a Bio Chemist who moved from Hungary to US, kept on pursuing research in this area as she had enormous faith in this technology. Her team in BioNtech with Pfizer brought out mRNA based vaccine for covid 19 in just 48 hours after Chinese Scientists published the genetic sequence of covid virus! Covid vaccine is the first step. More than 150 mRNA vaccines are now being developed for diseases ranging from flu to HIV. It could cure several cancers in a few years. A last stage head and neck cancer patient admitted in University of Arizona got completely cured after taking nine mRNA shots in a period of 27 weeks last year. This technology is really promising.

How does it work? There is a protein for every bodily function and our body makes trillions of them every day. If we could somehow tell it to make a specific protein to beat a virus or cure a disease, it would do so on its own mRNA or messenger ribonucleic acid made in the laboratory makes it possible to send instructions to the protein generators in our cells.

mRNA vaccines have been announced for Nipah, ZiKa, herpes, dengue and hepatitis. Meanwhile Kariko has set her sights on something bigger. She is into development of a mRNA vaccine for slower aging leading to eternal youth!