Podcast: How do mRNA vaccines work and why were they developed so fast?

Genetics Unzipped is back for 2021 with a new series of stories from the world of genes, genomes and DNA, from the history of genetics to the latest cutting-edge research. In the first episode geneticist Dr Kat Arney takes a look at the discovery of messenger RNA (mRNA) and finds out how mRNA has been pressed into service as a COVID-19 vaccine at breakneck speed.

There were some big names involved in the discovery of mRNA in the 1960s – Francis Crick, Sydney Brenner, Francois Jacob and more – but who actually discovered this vital molecular messenger? And why did nobody win a Nobel Prize for it?

As scientist and author Matthew Cobb explains: “Who discovered mRNA? It is complicated. No wonder the Nobel Prize committee did not try and reward the discovery. Naming just three (or even six) people would be invidious — mRNA was the product of years of work by a community of researchers, gathering different kinds of evidence to solve a problem that now looks obvious, but at the time was extremely difficult.”

https://geneticliteracyproject.org/wp-content/uploads/2021/01/401-mRNA-and-Vaccines-GeneticsUnzipped.mp3

From the 1960s we come right up to the present day to look at mRNA vaccines for COVID-19, which have been developed at breakneck speed to tackle the pandemic. We explore the key breakthroughs that turned the languishing field of mRNA therapeutics into a game-changing medical technology, take a closer look at how mRNA vaccines work and why they were developed so fast for COVID-19, and explore how this new technology might change the face of immunization and public health in the future.

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Genetics Unzipped is the podcast from the UK Genetics Society, presented by award-winning science communicator and biologist Kat Arney and produced by First Create the Media. Follow Kat on Twitter @Kat_Arney. Follow Genetics Unzipped on Twitter @geneticsunzip, and the Genetics Society at @GenSocUK

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