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Potential drug treatment for Hepatitis B

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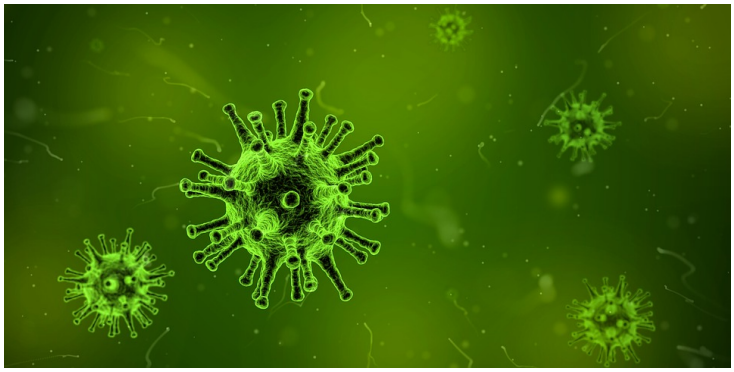

A major new insight into how hepatitis B virus works could pave the way for new drug treatments for the infection which is the major cause of liver cancer worldwide.

The team at the Universities of York and Leeds identified an "assembly code" in the genetic material of Hepatitis B Virus that allows it to create a protective casing in which it can produce new infectious virus particles.

They found that the signal, generated by ribonucleic acid (RNA), helps viral proteins to overcome an 'engineering problem', assembling them into in a particular geometric pattern.

The virus is transmitted through blood and bodily fluids. It is thought that more than two billion people have been infected worldwide, and around 350 million people remain carriers of the infection, which can, over time, result in their deaths.

The virus occurs in Europe but is much more common in parts of Asia, especially China and Africa. There are more than one million infected people in the US where treatments can include expensive drugs and even liver transplantation. This research provides significant contribution towards US healthcare and for other countries.

The researchers are already collaborating with a team at the National Institutes of Health in the US to identify potential drug candidates that are capable of breaking the link between RNA and proteins which should halt viral replication.