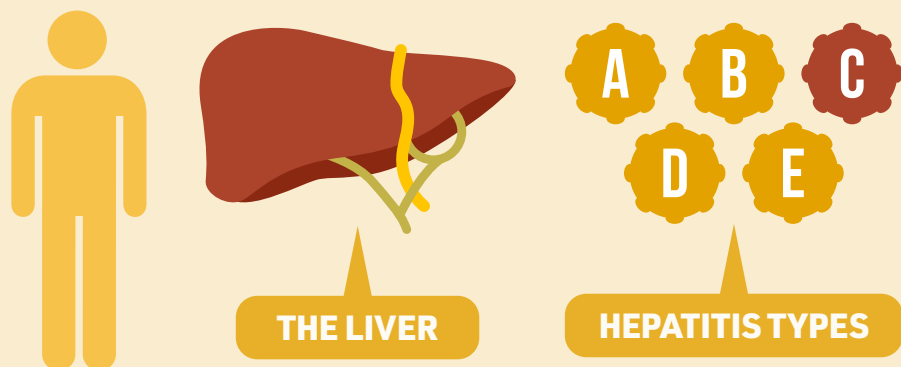


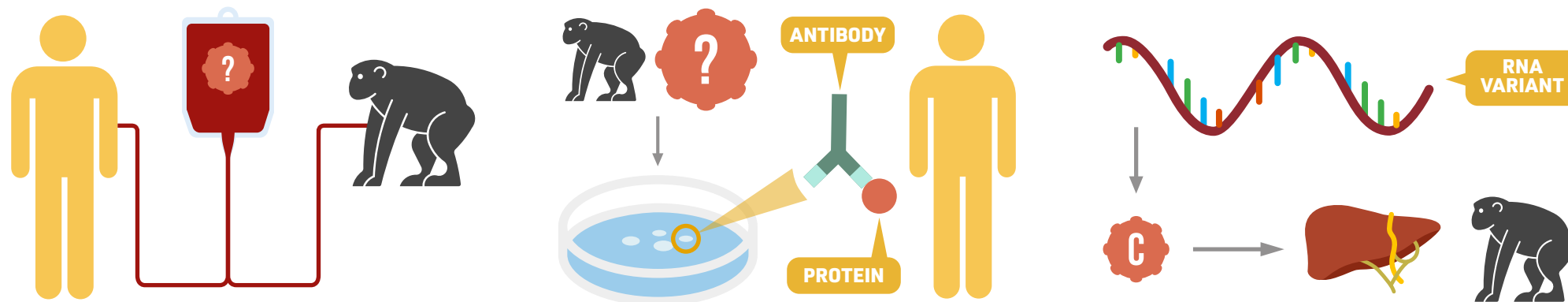
2020 NOBEL PRIZE IN PHYSIOLOGY/MEDICINE



The Nobel Prize in Physiology or Medicine 2020 was awarded to **Harvey J. Alter**, **Michael Houghton** and **Charles M. Rice** for the discovery of Hepatitis C virus.



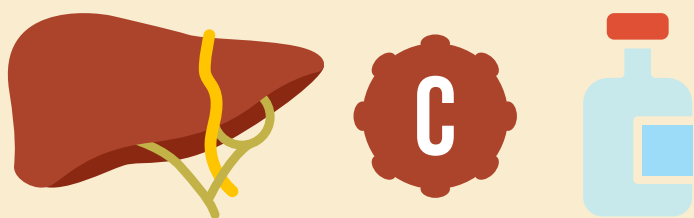
Hepatitis is a viral disease which causes liver inflammation. There are several types of hepatitis – this year's Nobel Prize goes to researchers who discovered the hepatitis C virus. Along with the other blood-borne form of hepatitis, type B, hepatitis C often requires treatment to cure. It can lead to cirrhosis and liver failure, and there is currently no vaccine available.



Alter investigated hepatitis in patients who'd received blood transfusions. Blood from these patients transmitted the disease to chimpanzees, and he showed that it was a distinct form of viral hepatitis.

Houghton identified DNA fragments from the new virus in chimpanzee blood. He identified virus proteins from the fragments using patient antibodies, allowing classification of the virus as hepatitis C.

Rice created an engineered version of the hepatitis C virus and showed it could cause hepatitis in chimpanzees. This proved that hepatitis C virus was the cause of explained hepatitis caused by transfusions.



WHY DOES THIS RESEARCH MATTER?

The discovery of the hepatitis C virus allowed for the development of tests to detect it, eliminated hepatitis as a result of blood transfusions in many parts of the world. It also allowed development of effective drugs to treat the disease.

Nobel Prize in Physiology or Medicine Press release: <https://www.nobelprize.org/uploads/2020/10/press-medicine2020.pdf>