



HEPATITIS C VIRUS LIFE CYCLE

1 Hepatitis C Virus

2 Attachment: Virus binds to a liver cell receptor. At least 4 different proteins are needed for virus entry.

3 Penetration and Entry: The virus is taken up by the liver cell, which "swallows" it.

4 Fusion and Viral RNA release: The virus fuses. Its protein coat dissolves. The viral RNA code is released inside the liver cell.

5 Production of protein strand: the viral RNA takes over the liver cell machinery to make viral proteins.

6 Protein processing: Protease enzymes from the hepatitis C virus and the infected liver cell cut the protein strand into various viral proteins.

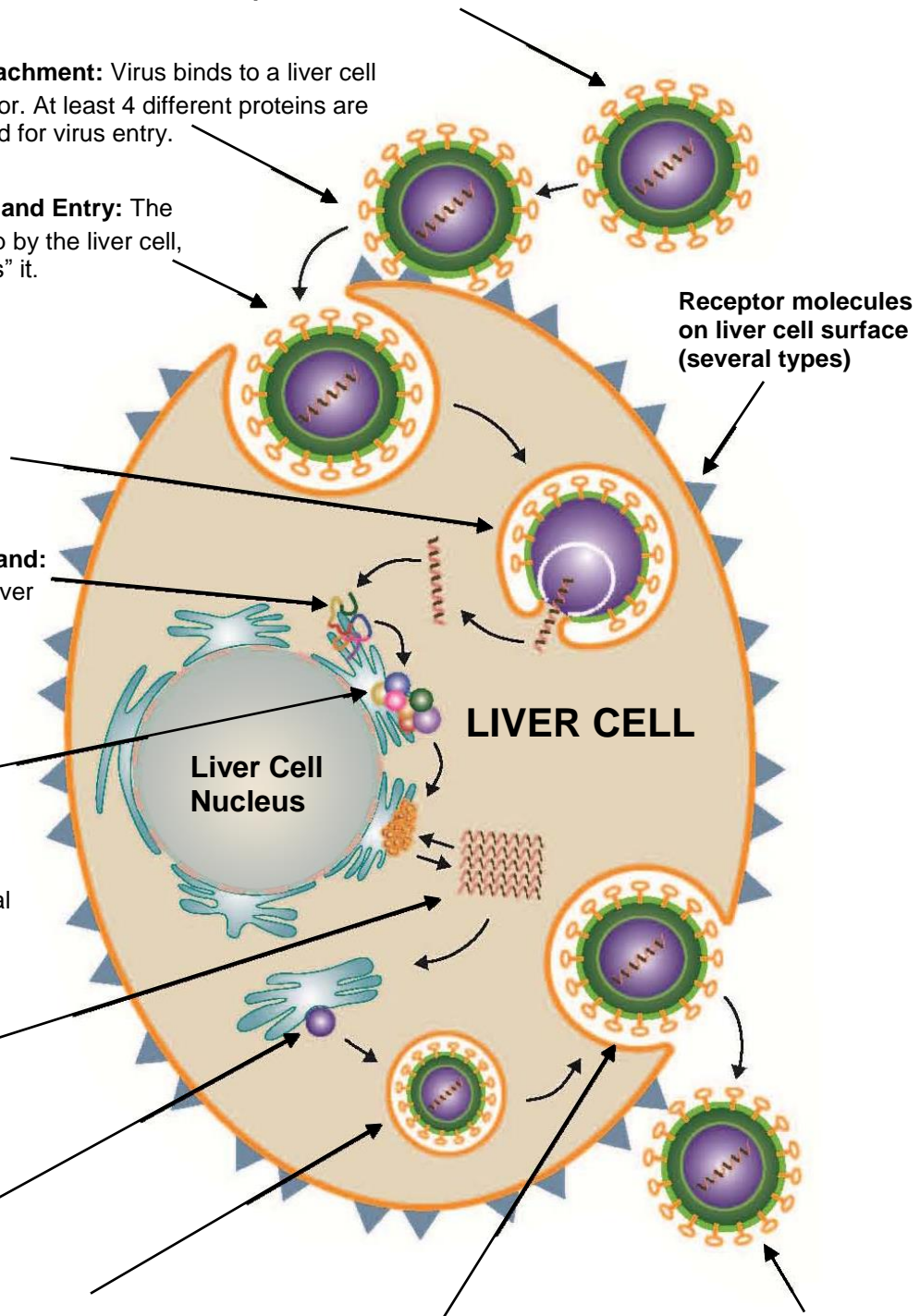
7 Replication: Hundreds of copies of hepatitis C RNA are made by the polymerase enzyme

8 Viral Assembly: A protein shell (the capsid) forms around a copy of hepatitis C RNA to make a new virus.

9 Budding: Immature virus buds into a fluid-filled sac in the cell.

10 Secretion: Immature hepatitis C viruses migrate to the cell surface.

11 Release: New hepatitis C viruses are released from the infected cell.



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