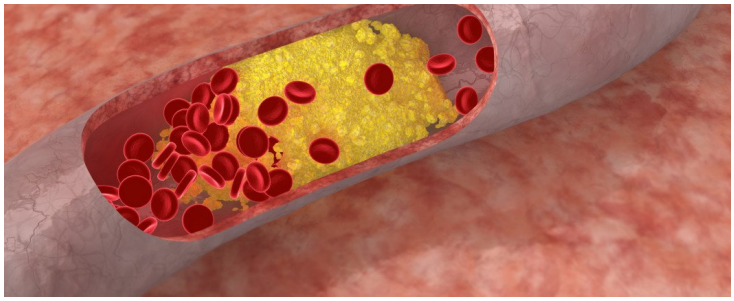
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Scientists study the mechanism of maintaining blood triglycerides

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Researchers have identified the role of a motor protein, Kinesin, in this mechanism.



A team of scientists from the Tata Institute of Fundamental Research (TIFR) Mumbai, Indian Institute of Science (IISc) in Bengaluru and Indian Institute of Science Education and Research (IISER) in Pune has deciphered a crucial mechanism by which liver maintains a balance of triglycerides in blood.

Researchers have identified the role of a motor protein, Kinesin, in this mechanism. Kinesin acts as a carrier of lipid droplets that contain fat molecules and assists in transport and secretion of triglycerides outside the liver cells.

During fasting, kinesin detaches from lipid droplets. There is no secretion and thus fat accumulates in liver while the reverse happens after eating. This maintains the amount of circulating fat in the blood.

Apart from its role in regulating the fat secretion, the team has found that Kinesin is important for replication of hepatitis C virus that infects liver.

The researchers suggest that a targeted interference against kinesin on lipid droplets can be used to block hepatitis infection. The team plans to take this direction of research further.