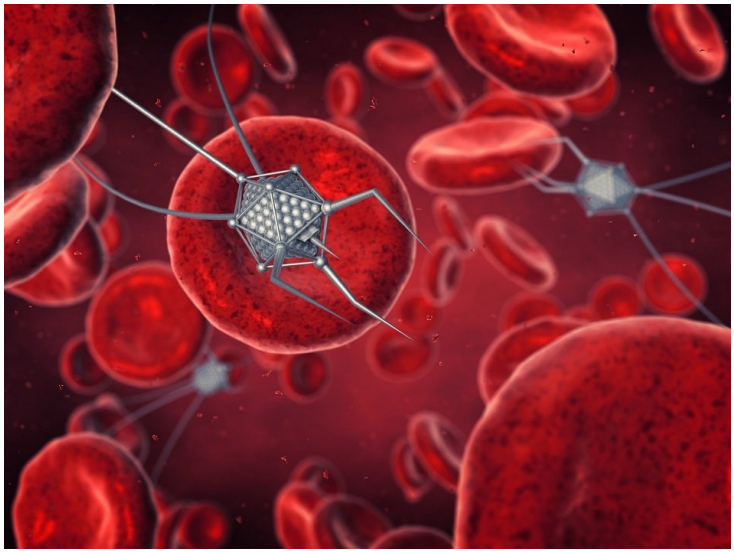
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IISc team develops novel diagnostic probe

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These nanomachines, measuring about 500 nanometres in length, can measure changes in blood viscosity or thickness to detect diseases at an early stage.



A team of researchers at the Indian Institute of Science (IISc), Bengaluru with their counterparts in Israel has developed a path-breaking process to detect diseases, at reasonable diagnostic costs.

These nanomachines, measuring about 500 nanometres in length, can measure changes in blood viscosity or thickness to detect diseases at an early stage. These tiny probes can be used in fluids up to 70-100 times more viscous than water. Once injected into the bloodstream, these tiny probes or nanomachines measure changes in blood thickness to detect diseases.

These probes, made of glass and iron, are spiral in shape and are navigated through the bloodstream using a magnetic field. They can exit the body through sweat or urine. If the fluid inside the blood vessel gets thicker, it will be picked up by the nanomachines. These can detect blood clots or blood vessel obstructions caused by cardiovascular diseases at an early stage.

The researchers believe that the technology of nanomachines needs time for development and will probably be ready for human trials in 8-10 years.