

Nanoparticle Phoresis, Immense Potential

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Calico, an independent R&D Biotech company established by Google Inc. and Arthur in 2013, is looking for ways to cure cancer, stop ageing and potentially make humans immortal. Google has been awarded a patent for 'Nanoparticle Phoresis' on March 5, 2015. The patent was filed in September, 2013 by Andrew Conrad, Head of Google's Life Sciences division. The patent talks about Nanoparticle Phoresis which is a device that is able to transmit energy into a person's body by radio frequencies, magnetic fields, acoustic pulses, infrared and many other means. This technology automatically modifies or destroys targets in the blood that have an adverse effects on health using an external energy source.

The patent details a wearable device that would detect target cells in the wearer's blood. The device is used in combination with a pill which contains magnetic nanoparticles. The nanoparticles can be introduced into a person's blood stream by injection, ingestion, inhalation, transdermal application, or in other manners. The magnetic nanoparticles in pills are designed so as to bind with target cells in the blood. The wearable device has a magnet configured to direct magnet field on the surface of contact of the wearer. The nanoparticles travel around the body binding with target cells they encounter. The magnet collects the nanoparticles and a radio frequency pulse transmitted from the wearable device vibrates the magnetic particles and heats them. This heating denatures the target cells. The change in the target cell could be any alteration of the physical or chemical properties of the target such that the adverse health effect is reduced or eliminated.

At present, treatment for curing diseases due to abnormal cells are often systemic and not specific to the target blood cell. This may cause destruction of healthy cells and proteins necessary for normal biological functions. Google has pointed out that targeted substances, like cells linked with cancer, or proteins linked with

Parkinson's disease or HIV infected cells could be eliminated. The potential for such a device is immense in that any disease caused by cell abnormality could be cured.

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