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Study compares efficacy of oral, injectable polio vaccines

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Singapore: NanoPass Technologies, a pioneer in intradermal vaccine delivery solutions, is collaborating with the US Center of Disease Control and prevention (CDC) in conducting a large phase III trial of polio vaccine in infants in South East Asia.

The study is a phase III, open-label, randomized clinical trial comparing immune response after receiving one-of-five different combinations of polio vaccines delivered as oral drops or as injections into the muscle or the skin. Two of the vaccine regimens include a low (20 percent) dose vaccine delivered intradermally using the MicronJet device. The study is currently enrolling infants aged six weeks and aims to enroll over 1,200 participants.

Two polio vaccines are used throughout the world to combat poliomyelitis (or polio); injected inactivated poliovirus (IPV) and live attenuated oral vaccine. IPV administration is needed globally to achieve polio eradication, but it is currently unaffordable for most of the developing world. Intradermal delivery may dramatically reduce the dose required for vaccination by several folds, thereby reducing the cost and increasing the affordability, of polio vaccines.

Mr Yotam Levin, CEO, NanoPass, said, "We are delighted to support CDC as part of NanoPass's long-term commitment to global health. We see an important opportunity for significantly reducing the dose of vaccination and hence its cost, by combining our device approach with polio vaccines. We will continue to provide access to our technology to public and private vaccine developers for global health applications, as we have to date with some of our partners including the Infectious Disease Research Institute (IDRI)."

"The MicronJet600 device, which is a microneedle-based device for ID delivery of vaccines and drugs, enabling consistent and simple delivery of therapeutics directly into the skin, is the shortest microneedle device presently registered with the FDA, and since it is about half a millimeter long it is applicable for infants as well as adults," he added.