

## Patient Friendly Delivery of VISTA Via Microneedle Device

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Changsha, Hunan, China - The capabilities of oligonucleotide therapy allow for novel and effective methods for combating diseases. Yet, delivery of such drugs is typically done via needles and syringes. This method is highly effective but makes for an unpleasant experience. "Needle phobia" affects a significant amount of the population and results in patients actively avoiding injections. For treatments that require regular injections, this can lead to low compliance. Furthermore, oral tablets for oligonucleotide therapy poses many challenges ranging from formulation to a very low yield of the drug reaching the blood stream.

Fortunately, microneedle delivery of drugs allows for efficient delivery of oligonucleotide therapy across the skin barrier in a way that is patient friendly. Microneedle patches or liquid delivery systems are capable of delivering VISTA therapy to the bloodstream, allowing for local and systemic delivery. The relatively short half-life of aptamers compared with antibodies necessitates more frequent dosages. Through microneedle delivery, these dosages can be administered in a cost effective and pain free manner.

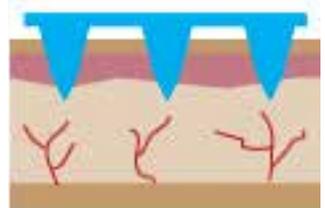
The design allows for microneedles to pierce through the top most layer of your skin, inserting just above the patient's nerve signals so there is no sensation of pain. Then, the drug cargo (i.e. VISTA) is released, dispersing through the other layers of the skin to the blood stream, and ultimately throughout the patient's body.

VISTA will incorporate microneedle delivery to combat infectious diseases in the first stage of development.

Veraptus is developing applications that can be used for the prevention and treatment of viral diseases. Aptamers have been shown to be effective at inhibiting various parts of a virus' life cycle. With microneedle administration, patients can have more control and more options for warding off viral infections. Prevention, treatment, and control of outbreaks are being addressed by Veraptus' researchers.



*Microneedle device is positioned on top of skin, microneedles insert just enough to not cause pain*



*The VISTA drug cargo is released, making its way eventually to the patient's bloodstream*

