



## PRESS RELEASE

# **Emergex Acquires Intradermal and Patch Drug Delivery Technology with Its Manufacturing Equipment from Zosano Pharma**

**Abingdon, Oxon, UK, 12 October 2022** – Emergex Vaccines Holding Limited ('Emergex', or the 'Company'), a clinical stage biotechnology company addressing major global infectious diseases through the development of fully synthetic CD8+ T cell Adaptive Vaccines, announces that it has acquired the assets of Zosano Pharma Corporation (Fremont, CA).

The assets acquired include intellectual property, license agreements, and manufacturing equipment. They also include Zosano's proprietary microneedle array patch (MAP) intradermal drug delivery system, including a reusable applicator, solid coated microneedle array patch technology, product packaging, methods for formulation and microneedle coating, and specialized equipment, designed and built for clinical and commercial manufacture of the technology.

Emergex has previously completed proof-of-concept studies, coating Zosano's MAP technology-based microneedle patches with Emergex vaccine candidates and observed favourable shelf-life characteristics. This acquisition provides Emergex with an innovative MAP delivery technology as well as optimised manufacturing capability for the technology.

**Brian Pfister, Vice President at Emergex USA commented:** "The vaccines being developed by Emergex have been designed for intradermal administration, and we have been exploring delivery using microneedle patches for some time. We feel that the MAP technology developed by Zosano is an exceptional strategic fit that complements our CD8+ T cell Adaptive Vaccine platform and intend to develop the MAP technology acquired from Zosano for delivery of our vaccines. We look forward to future clinical study with our vaccine coated patches."

### **Intradermal Delivery of Vaccines and MAP Technology**

The human skin is rich in antigen-presenting cells. It has been proposed that delivery of vaccine antigens to/through the skin (i.e., intradermal delivery) rather than to muscle or subcutaneous tissue could therefore induce superior protective immune responses while using smaller quantities of vaccine antigen. Additionally, MAP technology may reduce or eliminate the cold chain logistics from manufacture to use location and enable vaccine doses being shipped directly to patients, thereby making vaccines more accessible. Such an approach has potential to greatly streamline "the last mile" of vaccine administration globally.

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### **About Emergex**

Emergex, a clinical-stage, privately-held biotechnology company headquartered in Abingdon, UK, with an operating subsidiary in Doylestown, Pennsylvania, USA, is pioneering the development of 100%

synthetic T cell Adaptive Vaccines that harness the body's natural T cell immune response to destroy pathogen-infected cells in order to provide protection against some of the world's most urgent health threats: [i] viral infectious diseases, amongst which are Universal Coronavirus, Dengue Fever and Universal Influenza A, including pandemic influenza, as well as [ii] intra-cellular bacterial infectious disease.

Emergex has a growing proprietary pipeline of innovative CD8+ T cell Adaptive Vaccine and booster vaccine candidates that have the potential to deliver rapid, broad (mutation-agnostic) and long-lasting immunity to reduce serious illness associated with infectious disease. Emergex has a number of Phase I clinical trials underway, of which the most advanced programmes in development are [i] Dengue Fever (which may also be disease-modifying for other members of the *Flaviviridae* virus family, such as Zika and Yellow Fever) and [ii] Universal Coronavirus. Other programmes in development include vaccine candidates for Universal (pandemic) Influenza, Chikungunya, Hand, Foot, and Mouth Disease, Zika, and a booster vaccine for Yellow Fever. The programmes in the Discovery phase, for which our proprietary ligandome has been developed, include *Francisella tularensis* (intra-cellular bacterium), and a smallpox/monkeypox vaccine candidate.

Emergex's T cell Adaptive Vaccines candidates combine two proprietary technologies, [i] an empirically determined library of pathogen-derived protein fragments expressed on the surface of pathogen-infected cells (forming the MHC Class I expression "ligandome" library) using Immunotope Inc's immunoproteomics technologies to identify naturally processed and presented antigens only on infected cells, and [ii] a passivated gold nanoparticle carrier system designed to deliver the synthetic peptides to the skin-resident immune system (in combination with nociception) via micro-needles in order to elicit a robust, adaptive CD8+ T cell response. With potential stability at ambient temperatures, the vaccine candidates are intended to reduce the burden and the logistics of vaccine administration.

Find out more online at [www.emergexvaccines.com](http://www.emergexvaccines.com).  
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