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First mRNA Vaccine approved against Elephant endotheliotropic herpesvirus (EEHV) to protect Asian elephant calves

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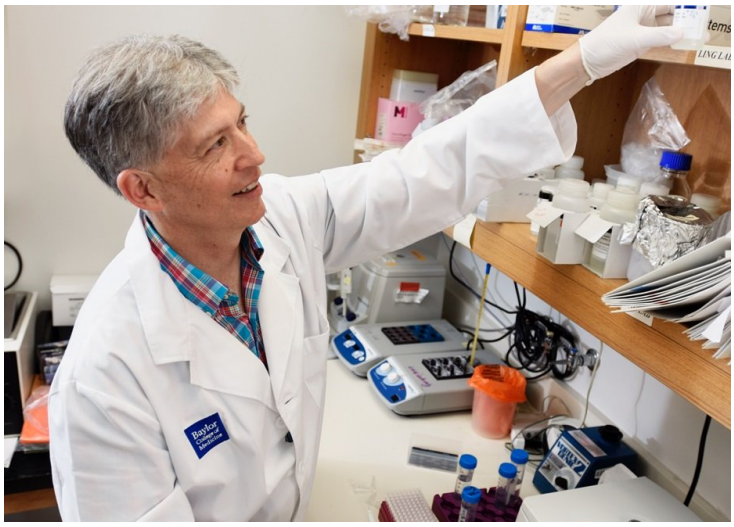

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Colossal, the de-extinction company, announces that theÂ mRNA vaccineÂ it helped to provide research support and acceleration funding for has been administered to the first elephant in captivity at the Houston Zoo.

Elephant endotheliotropic herpesvirus (EEHV) is the number one killer of Asian elephant calves living under managed care in North America and Europe and significantly impacts free-ranging populations of Asian elephants as well. Recent EEHV related deaths in several African elephants in the US have now raised concerns about EEHV in this elephant species, as well. The ground-breaking work will help with efforts to generate EEHV vaccines for both species of elephants.

The pioneering work of Dr. Paul Ling at the Baylor College of Medicine began in 2009 with a partnership with the Houston Zoo where they developed better tools to detect and manage the elephant endotheliotropic herpesvirus (EEHV) associated disease. In the past few years, progress on the development of the vaccine accelerated, in part due to the involvement of Colossal.

â??Colossal supported our efforts to work on an mRNA solution approach,â? shared Dr. Paul Ling, Professor at the Department of Microbiology and Virology at Baylor College of Medicine. â??It quickly became evident that the mRNA solution

was going to be feasible, so we prioritized implementation of that approach. We are much further along today than we would have been without Colossalâ??s scientific support, research teams and funding.â?

EEHV can cause lethal hemorrhagic disease and is often associated with massive levels of virus in multiple organs. The EEHV mRNA vaccine is designed to expose elephants to viral proteins critical for attachment and entry of the virus into host cells, thereby enabling induction of an immune response to block these processes, and help elephants control viral growth and prevent lethal disease. The initial EEHV vaccine is specific for the EEHV1A strain of the virus, which causes the majority of lethal infections in Asian elephants. It is envisioned that the mRNA vaccine platform can be easily modified to express similar viral proteins for other EEHV strains, including those that circulate in African elephants, in the future.

Extensive preclinical trials of the mRNA vaccine have been conducted and the results show that it can induce antibodies against the virus without adverse impacts. The vaccine was recently approved by multiple entities involved in overseeing use of experimental products to be applied to elephants. The Houston Zoo approved the vaccine for their managed community, and they have inoculated Tess. In the next three to five years, Dr. Ling hopes that this vaccine will be applied to the broad population of elephants under human care, worldwide.