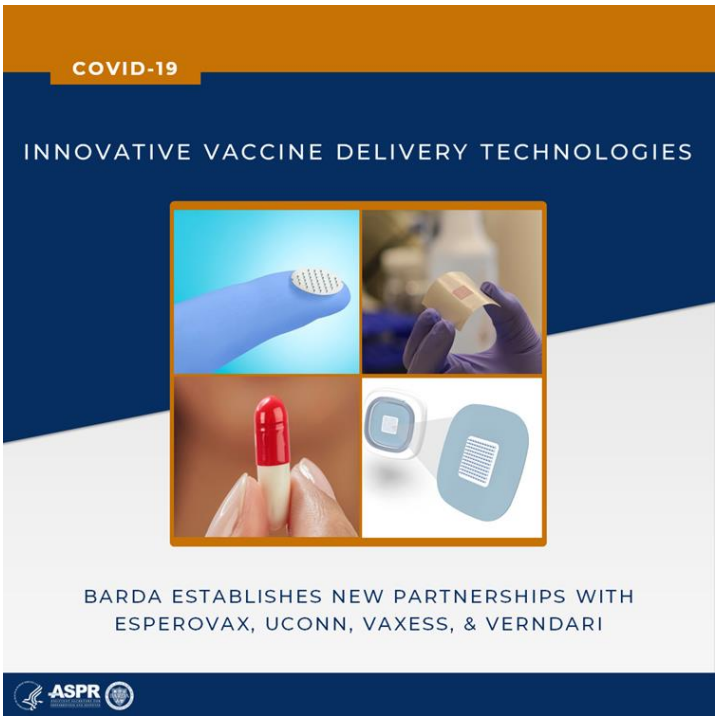
BARDA establishes four new partnerships to explore innovative vaccine delivery technologies

New vaccine delivery technologies could provide individuals with a broader range of options for immunization, including ones that are easier to use and potentially more effective than traditional vaccination with needle and syringe. With the potential for self-administration, these technologies could also expand the range of available care settings, allowing for wider coverage and ultimately improving the capability to reach herd immunity for many diseases.



BARDA will explore the feasibility of two innovative approaches with four new partners: Esperovax, Inc., the University of Connecticut, Vaxess Technologies, and Verndari, Inc. The novel routes of administration they are developing could reduce the dependence on needles and syringes that are used to deliver vaccine via intramuscular injection. Instead, a wearable skin patch or oral option for vaccines may support rapid, large-scale immunization while reducing the strain on the manufacturing supply chain.

The Egress RDTM mRMA oral cellular delivery technology from Esperovax, Inc. is a technology aiming to provide a cost-effective immunization that improves uptake with the potential for self-administration.

The other vaccine technologies – from the University of Connecticut, Vaxess and Verndari – collectively known as Micro Array Patches (MAP), would deliver vaccine using a microneedle patch worn on the skin as an alternative to standard inoculation.

With support from BARDA, the four partners will each advance the development of their respective products, formulate and optimize materials, and demonstrate their ability to effectively administer vaccine. If successful, these technologies could have a profound impact on the potential to offer better options to improve vaccine coverage.

These awards are part of BARDA's rapidly expanding COVID-19 medical countermeasure portfolio; visit BARDA's COVID-19 Portfolio to learn more.

About the companies:
The following information is provided by company and does not indicate endorsement by the federal government of the company or its products.

Esperovax:
Esperovax looks to become the global leader in oral tablet/capsule vaccinations for some of the world's deadliest treatable diseases by leveraging its new oral vaccine platform. Their delivery system holds the potential to provide billions of doses annually that could be delivered by mail and consumed directly by the consumer without the need to visit a healthcare setting. The oral platform holds a potential for significant expansion of vaccination to the most vulnerable and in need, at a fraction of traditional cost.

The University of Connecticut (UConn):
Dr. Nguyen and his lab at UConn have developed a process to manufacture a vaccine microneedle (MN) skin patch that only requires single-time administration to automatically deliver vaccine antigens repeatedly, similar to the use of multiple bolus injections, over a long period. They have shown that the MNs can deliver a clinical vaccine of Prevnar-13 against the pneumococcal infection (which causes pneumonia like COVID-19). They have started the study on the S-protein from a small urgent funding from UConn, School of Engineering to test/stabilize the S-protein (as a COVID-19 vaccine) in their MNs, and evaluate the antigenicity of the vaccine MNs (with only single administration) for a long-term immune-protection in an animal model.

Vaxess Technologies, Inc.:
Vaxess is developing next-generation vaccines that are not only more protective but also more accessible for people at home and around the world. Vaxess is developing its proprietary MIMIX™ therapies based on technology originally developed at Tufts University and MIT. With just minutes of wear-time, the shelf-stable, self-applied

MIMIX™ patch enables sustained release of treatments in the skin over weeks to months. Vaxess is a venture-funded company that is also supported by the NIH, NSF, and DARPA.

Verndari:
Verndari, Inc. was founded in 2015 with the goal of transforming global health through next generation vaccine development and delivery. The privately held company based in Napa, California, aims to treat existing and emerging diseases, with rapid response to new viral threats such as COVID-19 as well as to produce more effective vaccinations for existing viruses, such as influenza, enabling delivery at lower cost to populations around the world. Verndari's unique VaxiPatch™, a single-dose vaccination kit using a microneedle dermal technology, offers advantages that include dose sparing, improved efficacy, and pain-free delivery - while making vaccine administration much simpler. The technology eliminates the need for refrigeration and facilitates high-volume automated manufacturing of vaccines. Through innovation in vaccine science, Verndari aims to address many different diseases and to save countless lives. For more information on Verndari, please visit https://verndariinc.com.

Website Refresh - www.medicalcountermeasures.gov is pleased to announce a phased launch of our newly redesigned public website. We are making website improvements to provide a more modern and customer-centric web experience. Over the next several months you will see differences throughout the site while we continue implementing updates. Thank you for your understanding and please let us know if you have any questions: techwatchinbox@hhs.gov