

LTS wins funding from BARDA's Patch Forward Prize Competition for two partnerships

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Andernach – LTS LOHMANN Therapie-Systeme AG ("LTS"), a leading pharmaceutical technology company, is proud to announce its selection as a Concept Stage winner for two projects in the #PatchForwardPrize, a \$50 million challenge by the Biomedical Advanced Research and Development Authority (BARDA) to advance microneedle patch-based RNA vaccine technologies.

The Patch Forward Prize, part of the Project NextGen initiative led by BARDA, aims to accelerate next-generation vaccine technologies. By fostering partnerships between vaccine developers and delivery platform innovators, the competition drives progress from concept to clinical stages, paving the way for transformative advancements in global health. Each of the prizes announced today represents an award of US\$ 2 million, that will be shared between LTS and its partners.

The awarded projects bring together LTS's proprietary dissolvable Microneedle Array Patch (MAP) technology with mRNA vaccines from two partners, BioNet, a biotech manufacturer specializing in genetically engineered vaccines and PopVax, an Indian full-stack biotechnology company developing broadly-protective mRNA vaccines using machine learning-enabled computational protein design.

Both projects aim to address critical challenges in vaccine stability, delivery, and adaptability, with the potential to improve patient access and compliance. The focus will be on seasonal influenza vaccines, with the ability to pivot to pandemic strains if necessary.

BioNet's approach tackles the ongoing challenge of influenza strain variability by developing a trivalent seasonal influenza mRNA vaccine (mIV3) that targets conserved regions of the hemagglutinin (HA) and neuraminidase (NA) proteins from dominant H1N1, H3N2, and B influenza viruses. These mRNA constructs are carefully selected to elicit broad protective immune responses against seasonal influenza.

PopVax is leading the effort to develop a seasonal influenza vaccine built on their novel mRNA-encoded immunogen display architecture and LNP platform. PopVax's immunogen design and display approach boosts the elicited strain-specific antibody response by as much as 250x in mice in comparison with a leading approved influenza vaccine, leading to significantly lower dosage requirements. This approach also elicits a broader immune response, including robust antibody titer against pandemic H5N1 influenza, a rising threat in the United States, despite not encoding an H5N1-specific immunogen.

LTS CEO Bas van Buijtenen commented: "As a front-runner in drug delivery, we care passionately about solutions that provide better outcomes and better patient experience. We are grateful and proud that Barda's Patch Forward prize provides an opportunity to BioNet, PopVax and LTS to create a breakthrough in vaccine administration. We look forward to delivering on the promise of the combination of our technologies through our joint programs."

"LTS Microneedle-Array-Patch (Map)-Program is proud to have received those 2 awards together with our partners PopVax and BioNet, with their innovative mRNA technologies", added Dr. Frank Theobald, Head of MAP Program at LTS. "The BARDA Patch Forward Price allows combination of 2 breakthrough technologies to be better prepared for the next pandemics to come. The financial support from BARDA will help to advance the MAP technology towards commercialization addressing an unmet medical need and offering the opportunity for self-administration as well as the opportunity for lowering the cold-chain requirements for mRNA."

About LTS

We CARE. We CREATE. We DELIVER. The driving philosophy behind LTS. As a trusted technology partner for the pharmaceutical industry, we develop and manufacture innovative drug delivery systems such as Transdermal Patches ("TTS") and Oral Thin Films ("OTF") as well as wearable drug delivery devices ("OBDS"). LTS' commercial offering encompasses more than 20 marketed products and a diverse pipeline of more than 40 development projects targeting multiple disease indications. LTS's innovation pipeline contains both partner-funded as well as proprietary, LTS-funded projects. LTS maintains its leading position through the continuous refinement of its core TTS and OTF technologies and by advancing emerging drug delivery technologies, including Microneedle Array Patches ("MAP") for the transdermal delivery of small and large molecules, biological actives and vaccines. With its SorrelTM

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wearable drug delivery platform LTS offers patient friendly solutions for complex drugs delivery at home. Founded in 1984, LTS operates today from four sites: in Andernach, Germany, West Caldwell, NJ, USA, St. Paul, MN, USA and Netanya, Israel. LTS has also a representative office in Shanghai, China.

For further information, please contact:

Dr Iris Schnitzler: +49 2632 992589;

iris.schnitzler@ltslohmann.com;

<https://www.ltslohmann.com/>

Company Contact:

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