

UK supports world-first library of vaccine-enhancing adjuvants

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For use in new vaccines being developed against epidemic and pandemic threats



Scientists have launched the first-ever library of adjuvants - substances that could boost the performance of vaccines tackling some of the world's deadliest diseases.

The UK's Medicines and Healthcare products Regulatory Agency (MHRA) will host a repository of 25 vaccine-enhancing adjuvants that can be 'taken off the shelf' and used in new vaccines being developed against epidemic and pandemic threats. This includes diseases like mpox, COVID-19 and Ebola, as well as a novel or as-yet-unidentified Disease X.

The \$2.5 million project—funded and led by Norway-based Coalition for Epidemic Preparedness Innovations (CEPI)—will act as a matchmaking service, helping vaccine developers select the best vaccine-adjuvant combination to make their vaccines more potent and effective. The adjuvants have been shared with the MHRA by leading research institutes and medical companies around the world for onward distribution.

Following a pilot study, from late 2025, CEPI-backed vaccine developers will be able to request up to five adjuvant samples to combine with their vaccine candidates. Select CEPI-supported laboratories will then run preclinical tests on the vaccine-adjuvant pairings to screen which of the five combinations performs most strongly. The developer can use these data to guide whether to progress the successful vaccine-adjuvant pairing into clinical testing.

In the case of an outbreak of a new Disease X, the adjuvant library could help quickly identify the top-performing vaccine-adjuvant pairings to contain the spread of the virus before it reaches pandemic proportions.