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CEPI supports novel mRNA vaccine development in Korea to protect against future Disease X

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Novel self-amplifying design has the potential to reduce dosage and cost of vaccines



Norway-based Coalition for Epidemic Preparedness Innovations (CEPI) has partnered with Korea's Chungbuk National University (CBNU) to advance development of CBNU's self-amplifying mRNA vaccine technology.

The partnership aims to better prepare the world for future epidemic and pandemic threats, including an unknown or as-of-yet unidentified pathogen, known as Disease X, in pursuit of the 100 Days Mission.

As part of its plan to expand use of and access to novel mRNA innovations which can further bolster global pandemic preparedness, CEPI will provide CBNU with up to $1 million in seed funding to support evaluation of the immune response and efficacy of their mRNA vaccine technology in preclinical models.

With CEPI's support, CBNU will first assess the platform against avian influenza H5N1 virus. The findings will provide a model to help assess this new technology and explore how it could be used to rapidly respond to a future Disease X in as little as 100 days.

In addition to accelerating future outbreak response, CBNU's innovative technology could also enhance accessibility to mRNA vaccines. Costs could be further reduced due to the distinctive CBNU vaccine design which proposes replacing the 5'cap – a typical feature in mRNA – with an alternative modification.

The new partnership with CBNU extends CEPI's breadth of work with academic, government and pharmaceutical sector institutions in Korea, with CEPI having committed up to $292 million to partnerships in Korea to date.