

Imperial College to lead a Vaccine Manufacturing Hub

04 January 2018 | News

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A ground-breaking new research hub has been set up to help halt future outbreaks of killer diseases like Ebola and Zika. The new Future Vaccine Manufacturing Hub is led by Imperial College London and features four other UK universities and three UK institutes. It has been established with almost £10 million of funding by the Department for Health and will be managed by the Engineering and Physical Sciences Research Council (EPSRC).

The landmark project will help to increase vaccine coverage across the globe and improve the response to deadly outbreaks through the rapid deployment of life-saving vaccines.

The hub will collaborate with the Developing Countries Vaccine Manufacturers' Network (DCVMN) on manufacturing projects, initially in India, Vietnam, Bangladesh, Uganda and China and expanding to other countries in the future.

It will adopt an integrated approach that will build on new developments in life sciences, immunology and process systems to address these two challenges.

Approaches that will be explored by researchers at the Hub include the development of synthetic RNA vaccines which can be rapidly manufactured; the rapid production of yeast and bacterially-expressed particles that mimic components of pathogenic viruses and bacteria; and protein stabilisation to preserve vaccines at temperatures of up to 100 degrees Celsius, avoiding the need for refrigerated distribution and storage.