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GE explores plant-based technologies for vaccine

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Singapore: Biotechnology application provider iBio and GE Healthcare have formed a new global alliance to commercialize plant-based technologies for the manufacture of biopharmaceuticals and vaccines. The alliance builds on the existing development and marketing agreement between the two companies announced in 2010 and combines iBio's innovative plant-based vaccine manufacturing platform, iBioLaunch, with GE Healthcare's world-class capabilities in start-to-finish technologies for biopharmaceutical manufacturing.

iBio's research and development collaborator Fraunhofer USA Center for Molecular Biotechnology (CMB) will continue to play a key role in advancing the iBioLaunch platform. Financial terms were not disclosed.

The iBioLaunch platform is a proprietary gene expression technology that induces plants to rapidly produce high levels of proteins, such as vaccines, in a process which can be easily and reliably scaled-up in low cost, controlled-growth facilities. GE Healthcare develops and produces world-class start-to-finish technologies and tools used for the manufacture of biopharmaceuticals, vaccines and other protein-based therapeutics.

GE Healthcare's global team of bioengineers and bioprocessing scientists are working with researchers from iBio and CMB to develop a single, flexible facility which could significantly reduce the capital and operating costs of biotherapeutic and vaccine manufacture compared with traditional animal cell and microbial based methods. The iBioLaunch platform also has the potential to manufacture proteins which cannot be commercially produced in any other system.

Worldwide demand for biopharmaceuticals and vaccines is increasing dramatically, driven by ageing populations and the global effort to reduce the incidence of vaccine preventable diseases. In work funded by the Bill & Melinda Gates Foundation, iBio's pioneering plant-based technology has been used to produce an avian influenza vaccine candidate that recently completed a successful Phase I clinical trial.

The iBioLaunch platform was also used to produce a candidate vaccine against H1N1 influenza, for which a human Phase I trial was successfully completed in March, 2012. The alliance between the two companies aligns with GE's healthymagination initiative, which focuses on reducing cost, increasing access and improving quality in healthcare.

"We're delighted to form this new global alliance with iBio, who share our vision of bringing affordable and flexible manufacturing capabilities to the producers of these vital, lifesaving medicines. We look forward to continuing our work with the talented teams at iBio and CMB to explore how this innovative technology could become a commercial reality," said Olivier Loeillot General Manager of Enterprise Solutions at GE Healthcare Life Sciences.

Mr Robert B Kay, chairman and CEO of iBio, added, "We are delighted to be extending our alliance with GE Healthcare. We look forward to working together on the development of a flexible and cost-effective plant-based manufacturing platform that has the potential to assist in the global effort to increase access to biotherapeutics and help reduce the incidence of vaccine preventable diseases."

Commenting on the alliance, Dr Vidadi Yusibov, executive director of CMB, said, "We are pleased to continue and extend our relationship with iBio and GE Healthcare. The collective experience and skills of the teams at CMB, iBio and GE Healthcare combined with CMB's cutting edge pilot facilities in Delaware gives us a great opportunity to accelerate the implementation of this technology."