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### *New technology from Asymptote will improve third world vaccine storage and distribution*

Cambridge-based cryopreservation specialists Asymptote Ltd, have been awarded a grant from the Technology Strategy Board to develop ways of improving the storage of live vaccines for use in the third world. Asymptote is developing ultra low temperature storage equipment which could help prevent vaccines from being discarded unnecessarily.

The award will be used to establish proof of concept for a portable container for the frozen storage of live vaccines. This equipment will increase the usable shelf life of frozen samples, especially where the temperature needs to be maintained below minus 130°C over a period of weeks, in order to preserve it long enough to administer multiple doses. Vaccines where this is critical include a number of veterinary products together with live, attenuated vaccines in development for the treatment of human malaria.

Up to 50% of vaccines are discarded because people believe they have been damaged by exposure to high temperatures. Asymptote is developing new equipment and processes for storage and distribution of frozen vaccines, which will overcome this problem. The company is a pioneer in the use of electrically powered Stirling cryocoolers in cryopreservation equipment. If successful, this technology would have a large impact on the distribution of live vaccines in territories where liquid nitrogen is not readily available and electricity supply is unreliable.

The grant was awarded to Asymptote by the Technology Strategy Board as part of its drive to fund technology-inspired feasibility studies in biotechnology. Asymptote will be working closely with leading vaccine developers for input on the specifications of the equipment. Project manager Dr G.J. Morris said: "This funding from the Technology Strategy Board is extremely valuable and will allow the proof of concept to be established. If successful, this project will have far-reaching effects on the future of vaccine implementation."

Asymptote is involved in a number of Technology Strategy Board funded projects and is currently lead partner in a major £1.4 Million project to develop a GMP compliant cryogenic cold chain for clinical delivery of regenerative medicine therapeutics.