

PGTx Innovations in Vaccine Research – A Novel Dysenteric Vaccine

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PGTx is an SME with operating units in HK, the USA and the UK. The company develops and commercialises next-generation vaccines and biologicals targeting areas of high unmet need. Our vaccines use a proprietary technology platform enabling broad-spectrum protection across related pathogens. They can be administered orally or by injection in both live attenuated and inactivated formulations. PGTx spun out in 2021 from its parent company Pacific GeneTech (PGT). PGT was established in 2009 and specialises in food safety and veterinary vaccines with technologies sourced mostly from the US university research base. PGTx is now transitioning these vaccines into clinical use. Its lead enteric vaccine is a recombinant trimeric protein that is expressed on the surface of a bacterial or yeast vector. It has the potential to cross-protect against 4 key pathogens that cause severe bacterial dysentery. These include Salmonella, Campylobacter, Shigella and Enterotoxigenic E. coli (ETEC) and emerging variants. Dysentery can be associated with multiple co-infections with multiple different pathogens and the infection can lead to persistent watery or bloody diarrhoea with organ failure and long term illness or death. More than 1.6 million people die from dysentery every year including 0.5 million infants and children under 5 years of age. Countless days are lost through debilitating illness impacting work, education, and productivity. Treatments are very limited relying mostly on rehydration and antibiotics but increasing drug resistance is driving the need for more vaccines of which there are very few. No other vaccine under research has the potential to cross-protect against 4 key pathogens. The vaccine is simple to manufacture, cost effective, orally administered, and readily deployed in low-income countries where bacterial dysentery is endemic. The aim here is to include the vaccine in routine childhood prime and boost immunisation programmes. The PGTx vaccine also has an important role in protecting the military and travellers to affected countries.

Biography:

Dr Obolensky is a [microbiologist](#) and immunologist with a career that has spanned the biotech and [pharmaceutical industry](#), research institutions and private equity. She has worked as an independent consultant advising companies and institutions on ways to evaluate, protect and maximise their IP for commercialisation. Dr Obolensky has represented major institutions including the Wellcome Foundation Group Marketing Headquarters, Porton International PLC and most recently the British Heart Foundation. Prior to the British Heart Foundation, she became Head of [External Sciences](#) at H2O Venture Partners [Private Equity], concentrating on the development of early-stage technologies, including the origination and diligence of these companies. She is currently the Director of Translational Research for Pacific GeneTech a food safety and veterinary vaccine company and PGTx a clinical [vaccines](#) company with operational units in Hong Kong and the United States. Dr Obolensky is Fellow of the Royal Society of Medicine and a member of the British Society of [Immunology](#).

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