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Singapore begins trial of cancer vaccine



Singapore: National Cancer Centre Singapore (NCCS) has launched a clinical trial of a new cancer vaccine, a form of cancer immunotherapy, to boost the body's immune cells to attack a target protein in cancer cells administered to human patients.

The vaccine is developed by a US biotech company, MicroVAX.

Cancer Immunotherapy includes cancer vaccines, a form of treatment aimed at stimulating the body's immune cells to attack a target protein on cancer cells. This particular cancer vaccine encodes one of the most common proteins, MUC-1 that is expressed on many cancers, including ovarian, breast, prostate, colon, pancreas and lung cancer, but not expressed on normal cells.

The Singapore Clinical Research Institute (SCRI), a wholly-owned subsidiary of MOH Holdings, sponsored this clinical trial providing support that included project oversight, study drug importation, quality assurance and providing the medical expertise required in conducting a cancer trial.

Dr Toh Han Chong, principal investigator of the phase I clinical trial, NCCS, said, "What makes this vaccine unique is that MUC-1 is attached to a protein that is intentionally designed to further enhance and boost the efficiency and power of the body's immune system." This protein is called CD40-ligand (CD40L), to form a construct called MUC-1+CD40L.

This construct fits into the backbone of a hardy virus called adenovirus, which further improves the body's immune system specifically against MUC-1 expressed on the surface of the cancer, as demonstrated in convincingly superior animal study results.

Mr Jake Frank, CEO, MicroVAX, commented on this first-in-human study, "MicroVAX wishes to express its gratitude to the patients and their families who are participating in the testing of its TAA/ecdCD40L cancer vaccine in the phase I clinical trial currently being carried out under the direction of Dr Toh and his world class team at the National Cancer Centre Singapore with the support of the Singapore Clinical Research Institute. In preclinical studies, MicroVAX's TAA/ecdCD40L vaccine was found to induce a potent immune response that surpassed that induced by other immunological strategies."

Dr Teoh Yee Leong, Chief Executive Officer, SCRI said, "This trial showcases the strong tripartite partnership between an Academic Research Organisation like SCRI with a biotech company like MicroVAX and a prestigious healthcare institution like NCCS in conducting clinical trials in Singapore. It is also the first time SCRI is sponsoring a clinical trial to support the clinical trial community in Singapore and importantly patients participating in these trials are the ones to most benefit."