
ONCOLYT-X - Oncolytic virus manufacturing for the preparation of clinical studies

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Novel oncolytic virotherapies are gaining recognition for their multimechanistic mode of action in targeting cancer. These viral vectors replicate specifically in cancer cells, causing them to lyse. In addition, the localized virus infection stimulates inflammation within the tumor bed, thereby reprogramming the immune-suppressive tumor microenvironment. By releasing immune-stimulatory cytokines along with tumor antigens from dying tumor cells, a systemic tumor-specific immune response can be triggered.

The Scientists have previously developed a precision-engineered chimeric oncolytic virus vector, FUSE102, which additionally encodes a PD-L1-targeting immune checkpoint inhibitor. The ONCOLYT-X project will bridge FUSE102 from the lab towards the clinical setting. Within this project, upstream and downstream manufacturing processes, which have been developed in the small scale, will be transferred to a contract development and manufacturing organization (CDMO) for further optimization and scale-up towards a full-scale GMP-compliant production process.
