

2022 American Association for Cancer Research (AACR) Annual Meeting

Abstract #: 3558

A novel and versatile cytokine empowered DNA vaccine platform with superior immune activating potential

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Immunotherapy, in particular Immune Checkpoint Blockade (ICB) has been regarded as the next standard of care for many solid tumor indications. Yet, a significant proportion of patients do not respond to therapy. More specifically, failure of ICB has been linked to the absence of an anti-tumor immune response that can be boosted or revitalized. Cancer vaccines that are designed to elicit such response by educating the host immune system to recognize tumor antigens, are therefore considered a key next generation therapeutic modality for the treatment of human cancers.

Various vaccine platforms have been developed over the years, but recent advances in delivery technologies combined with the intrinsic qualities of the DNA matrix have positioned DNA vaccines as a safe and flexible alternative to other types of vaccine technologies. Vaccibody is developing DNA vaccines that allows specific targeting of tumors antigens to Antigen Presenting Cells (APCs), thus maximizing the elicited immune response.

Here we present a second-generation version of our DNA platform in which our vaccibody molecule can be co-expressed with immune-stimulatory proteins from one plasmid using a multicistronic design. Compared to the vaccibody molecule alone the simultaneous expression of selected immune stimulatory cytokines was shown to boost the overall immune response almost 3-fold to drive a potent anti-tumor response.

These data demonstrate the flexibility and potential of DNA vaccines as well as the advantages of combining an APC targeted delivery of tumor specific antigens together with a local production of immune stimulatory proteins.



Abstract #: 3558 Title: A novel and versatile cytokine empowered DNA vaccine platform with superior immune activating potential Authors: Beraas, *et al.* Session Title: Vaccines: Oncolytic and Prophylactic Session Date and Time: Tuesday, April 12, 2022 | 1:30 p.m. – 5:00 p.m. ET

Nykode Therapeutics

Nykode Therapeutics is a clinical-stage biopharmaceutical company dedicated to the discovery and development of vaccines and novel immunotherapies for the treatment of cancer and infectious diseases. Nykode's modular vaccine technology specifically targets antigens to Antigen Presenting Cells, which are essential for inducing rapid, strong and long-lasting antigen specific immune responses and eliciting efficacious clinical responses.

Nykode's lead product candidates are VB10.16, a therapeutic vaccine for the treatment of human papilloma virus 16 induced malignancies which is in Phase 2 for the treatment of cervical cancer; and VB10.NEO, a cancer neoantigen vaccine, which is exclusively out licensed to Genentech and is in Phase 1b for the treatment of locally advanced and metastatic tumors and Phase 1/2a for the treatment of melanoma, lung-, head and neck, renal-, and bladder cancer. Additionally, Nykode has initiated a Phase 1/2 trial in 2021 with its two next-generation COVID-19 vaccine candidates.

The Company has collaborations with Roche, Genentech and Nektar Therapeutics within oncology, a multi-target collaboration with Regeneron within oncology and infectious diseases and a collaboration with Adaptive Biotechnologies for COVID-19 T cell vaccine development.

Nykode Therapeutics' shares are traded on Euronext Growth (Oslo), a trading platform operated by Euronext, the leading Pan-European market infrastructure. The ticker code is NYKD. Further information about Nykode Therapeutics may be found at <u>http://www.nykode.com</u>.

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