

Cantargia: New preclinical data on nadunolimab potential to enhance anti-tumor effect of immunotherapy presented at CRI-ENCI-AACR

Cantargia (Cantargia AB; Nasdaq Stockholm: CANTA) today reported new preclinical data highlighting how nadunolimab, an IL1RAP-targeting antibody currently in phase II clinical development, can be used to block the activity of cancer-promoting immune cells and increase the anti-tumor efficacy of immunotherapy i.e. a cancer vaccine. The data were generated by Professor Douglas Hanahan's research group at the Lausanne Branch of the Ludwig Institute for Cancer Research and the Swiss Institute for Experimental Cancer Research (EPFL) and are presented in a poster session at the CRI-ENCI-AACR International Cancer Immunotherapy Conference 2023.

"The new preclinical data show that nadunolimab reduces immune suppression and improves the anti-tumor effect of a cancer vaccine, further supporting the potential of nadunolimab. These data are also relevant in the context of our results from combination of nadunolimab with the immunotherapy pembrolizumab in the CIRIFOUR trial, as similar mechanisms likely control response to therapy in this setting as well. We look forward to continuing the fruitful collaboration with Professor Hanahan's group to better understand these effects, with the goal of providing new treatment options for patients with cancer," said Göran Forsberg, CEO of Cantargia.

Tumors possess a wide variety of strategies by which they can gain resistance to anti-tumor therapies. One such strategy is the expansion of immune cell populations known as myeloid-derived suppressor cells (MDSC). MDSC have immunosuppressive properties and can mediate resistance to immunotherapy, as well as chemotherapy and cancer vaccines.

The new data demonstrate that IL-1 signaling molecules, including IL-1alpha, drive the *in vivo* expansion of MDSC which have high levels of IL1RAP, the target of nadunolimab. Nadunolimab can potentially block signaling via IL-1alpha and IL-1beta. In a model of cervical cancer, shown to produce IL-1 signaling molecules and trigger MDSC expansion, a nadunolimab surrogate was able to dampen the MDSC expansion and reduce tumor growth. Notably, the nadunolimab surrogate also improved the anti-tumor efficacy of a cancer vaccine, in parallel with increasing the number of tumor-reactive T cells generated in response to the vaccine. Thus, nadunolimab can alleviate immunosuppressive mechanisms used by tumors to provide resistance against anti-tumor therapies.

"Immunotherapies have become a breakthrough in therapy of certain cancers, but as of today, these therapies are not curative and only benefit a minority of patients. It is imperative to understand the biological limitations to further improve the outcome, and these novel data provide new hypotheses for future clinical trials," said Douglas Hanahan, Distinguished Scholar at the Ludwig Institute for Cancer Research.

These preclinical data are presented in detail in a poster session at the CRI-ENCI-AACR International Cancer Immunotherapy Conference 2023. More information on the poster session is found below:

Poster number: P225

Poster title: Pharmacological targeting of IL-1 signaling disrupts cancer-induced systemic immunosuppression and improves therapeutic vaccine response in HPV16-induced cancer

Session date and time: September 22, 2023, 12:45 – 2:00 PM CEST

Presenters: Lecointre Morgane and Jérémy Guillot

Nadunolimab is currently investigated clinically in pancreatic cancer, non-small cell lung cancer and triple-negative breast cancer, with over 200 patients treated to date. Positive interim data from nadunolimab in combination with chemotherapy indicate stronger efficacy than would be expected from chemotherapy alone. A clinical phase IIb trial in pancreatic cancer is currently in preparation.

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About Cantargia

Cantargia AB (publ), reg. no. 556791-6019, is a biotechnology company that develops antibody-based treatments for life-threatening diseases and has established a platform based on the protein IL1RAP, involved in a number of cancer forms and inflammatory diseases. The main program, the antibody nadunolimab (CAN04), is being studied clinically primarily in combination with chemotherapy with a focus on pancreatic cancer, non-small cell lung cancer and triple-negative breast cancer. Positive interim data for the combinations indicate stronger efficacy than would be expected from chemotherapy alone. Cantargia's second development program, the antibody CAN10, blocks signaling via IL1RAP in a different manner than nadunolimab and addresses treatment of serious autoimmune /inflammatory diseases, with initial focus on systemic sclerosis and myocarditis.

Cantargia is listed on Nasdaq Stockholm (ticker: CANTA). More information about Cantargia is available at www.cantargia.com.

About nadunolimab (CAN04)

The antibody nadunolimab binds strongly to its target IL1RAP and functions by inducing ADCC and blocking IL-1alpha and IL-1beta signaling. Nadunolimab can thereby counteract the IL-1 system which contributes to the immune suppressive tumor microenvironment and development of resistance to chemotherapy. Nadunolimab is investigated in multiple clinical trials; the phase I/IIa trial CANFOUR evaluates nadunolimab in combination with standard chemotherapies in patients with PDAC (gemcitabine/nab-paclitaxel) or NSCLC (platinum-based chemotherapies) ([NCT03267316](#)). Positive interim data show durable responses for the combination therapy in 73 PDAC patients, resulting in median iPFS of 7.2 months and median OS of 12.9 months. An even higher median OS of 14.2 months was observed in a subgroup of patients with high tumor levels of IL1RAP. Strong efficacy was also observed in 30 NSCLC patients with median PFS of 7.0 months and a response rate of 53%; even higher responses were observed in non-squamous NSCLC patients. Early efficacy data from the phase Ib/II trial TRIFOUR ([NCT05181462](#)) also shows signs of promising efficacy in TNBC with a 50% response rate for nadunolimab combined with carboplatin/gemcitabine. Nadunolimab is also investigated with chemotherapy in the clinical trials CAPAFour ([NCT04990037](#)) and CESTAFOUR ([NCT05116891](#)), and with the checkpoint inhibitor pembrolizumab in the CIRIFOUR trial ([NCT04452214](#)).

Attachments

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