Pioneering research results for Kancera's Fractalkine blockers may pave the way for new treatment for ovarian cancer

Kancera AB (Nasdaq First North Premier Growth Market: KAN) reports preclinical research results, which show that the company's Fractalkine blockers have the potential to disrupt cancer cells' resistance to chemotherapy and thereby significantly improve the treatment of advanced cancer such as ovarian cancer (1). The disease affects over 100,000 women annually and the need for long-term effective treatments is significant as the disease is considered to be the most serious form of gynecological cancer. Kancera is now planning for clinical preparatory studies with the aim of defining an optimal dosing strategy for the Fractalkine blocker KAND567. Positive results would enable the start of a clinical study in cancer patients as early as 2022.

"The greatest obstacle to the effective treatment of many cancers is the increasing resistance of the cancer to chemotherapy as the disease progresses. Pioneering preclinical results are published today that show that Kancera's Fractalkine blockers can render resistant cancer cells sensitive to chemotherapy again. This opens up attractive opportunities for the company in another therapy area, in addition to myocardial infarction and COVID-19. Since KAND567 is already in clinical development, the prerequisites are good to be able to start a first study in cancer patients already in 2022 ", says Thomas Olin, CEO of Kancera.

Pioneering preclinical results
The new preclinical research results show that Kancera's drug candidate KAND567 reverts previously treatment-resistant cancer cells to a state sensitive to today's standard treatment as soon as after 72 hours of treatment. Specific blockade of the Fractalkine receptor with KAND567 leads to inhibition of the cell's DNA repair system, which increases the damage to the cancer cell and more cancer cells die. KAND567 has been shown to be effective even if the cancer cell carries gene variants that normally impede effective treatment (wild-type BRCA and mutated p53). The results provide a strong basis for further development of both KAND567 and KAND145 towards new improved treatment strategies for patients with advanced cancer. These groundbreaking findings, which are related to both children and adult cancer, have been generated in a research collaboration with Nina Gustafsson's research group at Karolinska Institutet and SciLifeLab, where Kancera's doctoral students participated within the framework of the EU project SYNTRAIN (2).

Genetic information supports the new treatment concept
KAND567 affects the same type of DNA repair mechanism that is blocked in the genetically determined blood disease Fanconi Anemia. In Fanconi patients, DNA-damaging cancer drugs such as cisplatin, carboplatin and mitomycin C are particularly effective. This is because the damage is not repaired effectively, which results in the cancer cells being killed more easily. An over-activation of this specific DNA repair mechanism, on the other hand, is linked to a worse prognosis in ovarian cancer, breast cancer and lung cancer.

Kancera's treatment concept is based on the same type of synergistic effect between specific drugs that formed the basis for the establishment of PARP inhibitors (e.g. AstraZeneca's Lynparza) in the treatment of, above all, ovarian and breast cancer. PARP inhibitors have significantly prolonged survival without disease progression in patients with certain mutations and then mainly in earlier stages of the disease, i.e. before resistance to chemotherapy arises. PARP inhibitors are still one of the most important advances in the treatment of women's cancer and sales amounted to approximately USD 900 million in 2018, with an expected annual growth of 32 percent until 2027 (3).

In the field of cancer, Kancera's drug candidates are initially intended to be combined with or replace PARP inhibitors after first- and second-line treatment in combination with DNA-targeted chemotherapy. The company plans to apply for orphan drug status for KAND567 and KAND145 within the indication ovarian cancer, in order to further increase product protection in addition to existing patent applications.

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About ovarian cancer
Ovarian cancer annually affects over 100,000 women worldwide and is thus the seventh most diagnosed cancer among women and the most serious form of gynecological cancer. Ninety percent of ovarian cancers are classified as epithelial, with an average five-year survival of about 40 percent. The first line of standard treatment includes DNA-damaging chemotherapy (cisplatin and carboplatin) and paclitaxel. This treatment is initially effective in the treatment of 80 to 90 percent of patients, but within 18 months the cancer develops resistance, which underlines the great need for new long-term effective treatments for these patients (4).

Health economic assessments also show a readiness on the part of society to increase the use of new drugs for ovarian cancer, which have the capacity to prolong life and increase quality of life. This is reflected in the fact that the total market in the coming decade is expected to increase from USD 1.1 billion to USD 2.8 billion (5)

References

1. Targeting CX3CR1 Suppresses the Fanconi Anemia DNA Repair Pathway and Synergizes with Platinum. https://www.mdpi.com/2072-6694/13/6/1442
2. This project has received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 722729.
3. Global PARP (Poly ADP-Ribose Polymerase) Inhibitor Market – Market Insights
4. "Ovarian Cancer." *Nature Reviews. Disease Primers* 2: 16061. 2016.
5. The "Ovarian Cancer: Market Forecast Report 2019-2029"

About Kancera AB (publ)
Kancera AB is developing a new class of drugs for the treatment of inflammation and cancer. The company's drug candidates exert their effect through a newly discovered control system for immune cells and cancer cells, the so-called fractalkine system. Kancera is conducting and preparing, respectively, two fully funded Phase IIa clinical trials with its most advanced drug candidate KAND567 against heart and lung damage caused by hyperinflammation associated with myocardial infarction and severe viral infections. These clinical studies are expected to deliver results in 2021 and 2022, respectively. Kancera also conducts preclinical development of the drug candidate KAND145, which is primarily intended for the treatment of autoimmune diseases and cancer. The stock is traded on the Nasdaq First North Premier Growth Market. FNCA Sweden AB (info@fnca.se, tel. 08-528 00 399) is the company's Certified Adviser.

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Attachments

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