

Press Release Stockholm 2017-02-21

## Kancera provides operational update of the project portfolio

Kancera AB (publ) presents new information on

- how the company's Fractalkine blocker prevents immune cells (monocytes) to infiltrate the nerves and spinal cord, which prevents nerve damage and enhanced pain sensitivity associated with cancer treatment
- the fact that the new ROR inhibitors function throughout the day, opening up possibilities for more indications
- milestones in the HDAC6 project
- how PFKFB3 inhibitors seems more effective in in cells being transformed to cancer cells
- success in the development of drugs against Chagas (parasitic) disease
- an agreement in the form of a Letter of Intent has been reached with a company for the implementation of a Phase I clinical study of KAND567 (formerly KAN0440567).

## Fractalkine project:

Kancera reported in December 2016 that the company's Fractalkine blocker KAND567 effectively prevents pain caused by vincristine which is used to treat cancers such as acute lymphocytic leukemia (ALL), acute myeloid leukemia (AML), Hodgkin's disease, neuroblastoma and small cell lung cancer.

A possible goal of treatment with KAND567 is to enable an effective cancer treatment without dose-limiting side effects due to acute pain and, furthermore, to counter persistent nerve pain and complications after successful treatment. This treatment concept is based on KAND567 achieving an effective protection of nerves and reducing the amplification of pain signals that vincristine induces. Today there is no effective treatment for this type of nerve damage.

Kancera hereby reports that treatment with KAND567 prevents immune cells (monocytes) infiltrating the nerves and spinal cord, which also prevents nerve damage and enhanced pain sensitivity.

This has laid the foundation for how KAND567 can contribute to a more effective cancer treatment.

The immediate neuroprotective effect of KAND567 that can be seen after treatment with chemotherapy reflects the neuroprotective effect previously shown for this substance in the disease model for the autoimmune disease multiple sclerosis (PNAS, Vol 111, No.14, 5409-5414, 2014).

Overall, the findings suggest that KAN0567 has the potential to significantly improve the treatment of cancer as well as autoimmune diseases.

With the contract, in the form of a "Letter of Intent", entered into with a company for the implementation of phase I clinical study, the Fractalkine project is proceeding according to plan.

## **ROR project:**

In the ROR project, a new substance, KAN0441571, has been developed that is 5-10 times more effective against cancer cells than KAN0439834 and which can inhibit ROR over 24 hours when administered using twice daily oral dosing. This now provides the opportunity to test Kancera ROR inhibitors against blood and solid cancers that have previously been shown to be resistant to Kancera's previous ROR inhibitors.

#### **HDAC6** project:

Kancera has previously reported on the company's unique substances that exert a combined inhibition of HDAC6, and a yet unspecified mechanism, called TARGET2. The combined effect is expected to be an advantage in the treatment of breast cancer. With the ambition to enhance the activity on TARGET2, a crystal structure has been developed for this target (protein) in the cancer cell. Using information from the crystal structure new compounds have now been developed that act with great efficiency on TARGET2. Thus Kancera has achievement the milestones in the Vinnova-funded project HDAC6 up to January 2017, as documented in a Vinnova-approved report. With this achievement, the company has received an interim payment of 454 706 SEK from VINNOVA. The final report for this Vinnova project takes place in July of 2017.

## PFKFB3 project:

Kancera, together with Prof. Thomas Helleday's research group at the Science for Life Laboratory have previously shown that Kancera's PFKFB3 inhibitors increase the effect of DNA-damaging treatment like chemotherapy and radiation by counteracting the cell's ability to repair itself. This treatment concept has gained ground with the observation that PARP inhibitors, which act by this type of mechanism, have shown success in the treatment of ovarian cancer (ovarian cancer). Companies and researchers are now looking for new targets that can benefit from the same type of action against cancer. Among the targets being evaluated for cancer treatment are proteins ATM, ATR and PFKFB3.

Kancera hereby reports, together with Helleday's research group, that the impact of the company's PFKFB3 inhibitors (KAN0438757) increases in conjunction with radiation when a cell transforms from healthy to cancerous with the help of the cancer gene RAS (RAS is activated in about 20% of all cancers and 90% of pancreatic cancers). Competitive inhibitors that act against the ATR and ATM do not exhibit this favorable ratio between activity against cancer cells and normal cells. These results support the idea that PFKFB3 plays a significant role in the RAS-driven ability of cancer cells to survive and KAN0438757 can counteract this function of RAS in cancer cells.

#### A PARADDISE:

The experimental part of this EU-funded anti-parasitic project was completed at Kancera on January 31, 2017. Within the project framework, Kancera has developed inhibitors of several epigenetic enzymes from parasites, including sirtuin 2. Kancera hereby report that the company inhibitor of sirtuin 2 (KAN0441411) has demonstrated a significant efficacy in an animal model of Chagas disease caused by infection with the parasite Trypanosoma cruzi. Thus Kancera has achieved its ambitious goals for the project. Approximately 8 million people are estimated to carry the Chagas disease, which, in the chronic phase, leads to heart failure. The patients are mostly found in Central and South America. After the report was submitted to the EU in March, the exploratory phase of the project was completed within the company. Kancera is willing to cooperate with non-profit organizations and pharmaceutical companies to further develop the project through external financing.

#### Om Kancera AB (publ)

Kancera develops the basis for new therapeutics, starting with new treatment concepts and ending with the sale of a drug candidate to international pharmaceutical companies. Kancera is currently developing drugs for the treatment of leukemia and solid tumors, based on blocking survival signals in the cancer cell and on addressing cancer metabolism. Kancera's operations are based in the Karolinska Institutet Science Park in Stockholm and the company employs around 15 people. Kancera shares are traded on NASDAQ First North and the number of shareholders were more than 7700 as of January 13th, 2017. FNCA is Kancera's Certified Adviser. Professor Carl-Henrik Heldin, Professor Håkan Mellstedt, and MD PhD Charlotte Edenius are board members and Kancera's scientific advisers.

For further information please contact, Thomas Olin, VD: 0735-20 40 01 Address: Kancera AB (publ) Karolinska Institutet Science Park

# Banvaktsvägen 22 SE 171 48 Solna

Visit our home page at: <a href="http://www.kancera.com">http://www.kancera.com</a>.