



PRESS RELEASE

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Nature Medicine publishes study on new mechanism of action for cancer drug – Nxt2b increases holding in Vivolux

Vivolux AB, a drug discovery company specialized in cancer treatment, announced today that data that forms the basis for one of the company's promising projects has been published in the journal *Nature Medicine*. Researchers at the Karolinska Institute have discovered a novel cancer drug target. A small molecule has been identified that blocks the cellular machinery for breaking down defective proteins, leading to apoptosis – programmed cell death – of tumor cells.

The study shows that the drug candidate inhibits tumor growth in four different animal models, indicating that the substance could be used to treat cancer in humans. The new molecule has the capacity to kill tumor cells that are resistant to existing cancer therapy.

One of the tumour cell's "weak spots" is that large amounts of defective proteins are produced. These proteins are broken down by proteasomes, the cell's "waste disposal units" for proteins. The inhibition of the cell's ability to feed the protein waste into the proteasomes leads to the death of the tumour cells via apoptosis. To be specific, the new substance inhibits the deubiquitinating enzymes USP14 and UCHL5.

Vivolux has been collaborating with the researchers during the last 6 months to optimize the substance and its formulation in preparation for future clinical studies. The first indication could be multiple myeloma, where there is a significant medical need, particularly for patients who have become resistant to currently available cancer treatment. To secure funding for future development, Vivolux has decided to implement a directed stock issue to Bengt Ågerup's company Nxt2b. Hans Rosén, CEO and founder of Vivolux, is extremely optimistic about Bengt Ågerup's involvement and the potential this offers for seeing the development plan through to pharmaceutical product registration, which presupposes strong patent protection.

Hans Rosén states: "The article in Nature Medicine is a sign of quality and a milestone for the researchers. At Vivolux we are currently working intensively to build up strong patent protection and at the same time we are optimizing the properties of this drug candidate in the lead-up to planned clinical studies. Thanks to the involvement of Nxt2b as a stockholder we are in a position to pursue our drug development."

Bengt Ågerup states: "The publication in Nature Medicine is a major step forward for the researchers involved and for Vivolux. There is a considerable medical need for new cancer drugs and the development that is taking place within the framework of Vivolux is very much leading edge and has the potential to succeed. I take a very positive view of my investment in Vivolux and the future development of the company."

Professor Stig Linder states: "The new mechanism of action is extremely interesting. We hope that our drug development will lead to improved cancer treatment - although I would like to emphasize that we are at present unable to treat patients with our products."

Vivolux AB was founded in 2006, based on substances developed in-house and collaboration with a research group in Uppsala which has developed an advanced system for preclinical analysis of cancer drugs based on tests using fresh human cancer cells. Collaboration was later established with Stig Linder's research group at the Karolinska Institute. This collaboration has resulted in access to a further unique method for evaluating the effects of cancer drugs. In contrast to the standard method, which is used by leading pharmaceutical companies, three-dimensional aggregates of human cancer cells are used as models of solid tumors. This facilitates identification of drug candidates that can reach and kill all cells deep in the tumor tissue. With the aid of these unique methods several drug candidates have been identified and optimized.

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