

Lumito AB publishes white paper on the use of SCIZYS for high-sensitivity analysis of the breast cancer biomarker HER2 in tissue

Lumito AB (publ) ("Lumito" or the "Company") has published a white paper highlighting how the Company's product, SCIZYS, can be used to identify and quantify biomarkers, with a particular focus on the breast cancer biomarker HER2 at very low levels. The ability to measure extremely low HER2 levels has become increasingly important in recent years, both preclinically and clinically. This development is linked to the emergence of new breast cancer therapies targeting patients with very low HER2 expression, classified as HER2-low.

Lumito has conducted tests to confirm the performance of its product solution (SCIZYS) compared with established standard methods for tissue analysis. In these tests, SCIZYS demonstrated up to twelve times higher sensitivity, a significantly broader dynamic range, and the ability to measure HER2 expression at very low levels – enabling differentiation between HER2-low and HER2-negative tissue, which is very challenging with conventional standard methods.

Paul Waring, chairman of Lumito's scientific advisory board, comments:

"Lumito's SCIZYS upconverted nanoparticle detection system combines the best features of immunohistochemistry (morphological details, brightfield viewing) with the best features of immunofluorescence (higher sensitivity, wider linear dynamic range) while avoiding the issues related to Quantum dots (scintillation, photodegradation and toxicity). Incorporating these complementary features into a single detection system, on a single slide, without interference from autofluorescence, variable and unstable signals or by obscuring morphological details, overcomes many of the limitations of IHC, IF and Qdots. Currently configured to support discovery and translational research, Lumito's innovative and improved detection system will enable more sensitive, accurate and precise biomarker quantitation and localisation across the entire dynamic range, essential for many therapeutic targets and pharmacodynamic biomarkers, especially those that require measurement of low abundance proteins, such as HER2 low, and targets of protein degraders, such as SERDs and PROTACs."

Sanna Wallenborg, CEO of Lumito, comments:

"With SCIZYS, we provide researchers with a tool to detect extremely low levels of biomarkers in tissue, which addresses a significant need, particularly in the development of more effective drugs. We are once again demonstrating that our technology represents an important step towards more objective tissue analysis."

The white paper is attached to the press release and is also available on [Lumito's website](#).

*Quantum dots can be described as small light-emitting particles that can be used to label proteins in tissue. They emit bright signals in different colours and enable the analysis of multiple biomarkers simultaneously, but they can have disadvantages such as signal flickering, light sensitivity, and toxicity.

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About Lumito

Lumito specialises in medical technology and translational research in digital tissue imaging. Lumito offers a groundbreaking, highly sensitive imaging technique to locate and measure protein biomarkers in tissue samples using up-converting nanoparticles (UCNPs) through its patented research platform. The technology combines image data with precise biomarker detection, enabling images with higher contrast where irrelevant background information is filtered out. The technique can enhance the analysis of tissue samples by increasing objectivity, thereby contributing to research for more quantifiable diagnoses and optimised treatments. Lumito primarily focuses on drug development and digital pathology and is a spin-off from a research group at Lund University's Department of Atomic Physics and Laser Center. www.lumito.se/en/

The share is traded on NGM Nordic SME under the name LUMITO, and Mentor is Mangold Fondkommission.

Attachments

[Lumito AB publishes white paper on the use of SCIZYS for high-sensitivity analysis of the breast cancer biomarker HER2 in tissue](#)
[White Paper: A Novel Technique for Enhanced Detection of HER2- Low Using Photon Upconverting Nanoparticles](#)