

PHI at the Nordic Microscopy Society meeting, June 25-28

The Nordic Microscopy Society meeting in Lyngby Denmark offers several opportunities to meet with us and to hear about the latest HoloMonitor news.

Oral Presentation

PHI industrial doctoral student Sofia Kamlund has been invited to give a talk with the title *“Characterizing Cancer Stem Cell Movement and Division using Digital Holographic Imaging in Combination with Fluorescence”*. The presentation will be held during the session *“Imaging multicellular systems, Live imaging of single cells, Correlative Light and Electron Microscopy (CLEM)”*, Wednesday June 27 at 13.30-15.00. Sofia will talk about the method she and her colleagues have developed, which combines HoloMonitor® M4 with fluorescence microscopy to quantify the characteristics and behavior of cancer stem cells.

Finding the responsible – the role of cancer stem cells

In recent years the diversity of tumor cells has gained significant attention. It is now well accepted that tumor cells have different roles and characteristics, and that they may react differently to cancer therapy. Kamlund et al. recently published an article showing that sub-populations of cancer cells continue to divide rapidly after chemotherapy treatment, when conventional population data misleadingly indicate that this is not the case. Read the article [here](#).

In the expanded work to be presented, cancer stem cells were explicitly studied. Cancer stem cells are of particular interest since they are believed to induce tumor growth and metastasis. Using a combination of holographic and fluorescence microscopy, Sofia and her colleagues identified and tracked cancer stem cells in a cancer cell population. This allowed them to quantify how individual cancer stem cells respond to chemotherapy treatment over time.

The method developed by Sofia and colleagues allow researchers to study the effect of drug treatments on sub-populations of cancer cells. Such novel methods are urgently needed, as they enable cancer researchers to develop improved therapies that specifically target the tumor cells that are responsible for the progression and spreading of cancer.



Sofia Kamlund

Poster presentation

PHI's second industrial doctoral student, Louise Stenbaeck, will present a poster with the title *"Macrophage-uptake of sialic acid-targeted molecularly imprinted polymers"*.

You can view her poster and meet Louise during the session *"Image and Data analysis"*, Tuesday June 26 at 17.00-19.00. Louise participates in a large EU-project aiming to develop molecularly imprinted polymers (synthetic antibodies) to clinically diagnose the most common cancer forms in a much earlier stage than what is possible today. Read more about the Glycolmaging project [here](#).



Louise Stenbaeck

Exhibition

You are also very welcome to visit booth 17 to meet our Nordic Sales Manager Sebastian Umark and the other PHI representatives. Take the opportunity to learn about the cell analysis [applications](#) offered by HoloMonitor and to see our new software [HoloMonitor App Suite](#).