



15th of May 2018, Prof. Dr. Brita Singers Sørensen,

Department of Clinical Medicine – Aarhus University Hospital

“Tumour Microenvironmental Factors - Implications in Radiotherapy”

Dr. Brita Singers Sørensen is associated professor at the “Department of Clinical Medicine – Department of Experimental Clinical Oncology”. Already starting with her PhD thesis, in which she investigated microenvironmental factors on endogenous markers of hypoxia, she developed a strong interest in the tumor microenvironment and its implications in various therapies. In the Aarhus University hospital, as well as in hospitals around Europe, Dr. Sørensen is enrolled in different clinical trials and interested in the molecular background to improve clinical outcomes for cancer patients.

Even though cancer is one of the biggest research areas a lot of crucial information for therapy choice and improvement still remain elusive. One of those areas is the microenvironment of the different cancer types. Not only various cell types like macrophages, fibroblasts and stem cells but also the oxygen saturation are major effectors influencing therapeutical outcomes.

In her talk Dr. Sørensen focused on the negative implications of a hypoxic microenvironment in radiotherapy. Using a 15 gene expression signature in contrast to multiple usages of conservative, invasive probes she explained a new method to determine hypoxia in cancer. Application of this hypoxia profile could be used as prognostic marker to assign head and neck cancer patients to the usage of the hypoxic modifier nimorazole. This drug has been proven to decrease radioresistance and therefore improving outcomes of radiotherapies.

Katharina Falke & Oliver Reiners