Are biomarkers used to follow tumor evolution in pets having cancer?

Currently in general practice, there are limited peripheral blood biomarkers available for the diagnosis and objective measurement of treatment response of cancer in dogs. The available diagnostic modalities mainly include radiography, endoscopy, or advanced imaging under anesthesia (computed tomography, magnetic resonance imaging, positron emission tomography) which permit objective tumor measurements during clinical trials and facilitate the assessment of treatment response.

However numerous research initiatives are ongoing to identify and validate new biomarkers. One interesting example of a biomarker to assess the canine neoangiogenesis is the measure of the ratio of these two subsets of circulating hematopoietic stem and progenitor cells (CHSPCs). Numerous biomarker guided strategies have been proposed for the monitoring of clinical remission and the prediction of relapse in dogs with DLBC lymphoma undergoing chemotherapy. This includes PCR based monitoring of minimal residual disease or more “classical” serum biomarkers serial monitoring.