



New study extends application range of GILUPI CellCollector® towards quantitative analysis of gene expression in circulating tumor cells

GILUPI announces the publication of a peer reviewed study about a new and promising mRNA-based assay that allows detection and quantification of clinically relevant prostate and pancreas cancer markers in circulating tumor cells (CTCs)^[1].

CTCs are a surrogate marker for cancer progression and response to therapy. CTCs indicate tumor cell spreading and are a prerequisite for the development of metastasis. Detection and characterization of these rare cells could provide a powerful approach for early disease diagnosis as well as disease monitoring. The GILUPI CellCollector® offers medical personnel at any point-of-care with the unique opportunity to enrich these CTCs *in vivo*.

In this peer reviewed study, El-Heliebi from the Medical University of Graz and his coworkers combine the enumeration and expression analysis of CTCs by developing an *in situ* padlock probe assay. This method enables the quantitative analysis of mRNA expression for therapy relevant cancer markers. For this study, the GILUPI CellCollector® was applied to patients with prostate and pancreatic cancer and subsequent CTC enumeration and detection of mRNA transcripts were conducted by fluorescence microscopy.

In summary, CTCs were detected in 62% of prostate cancer and 47% of pancreatic cancer patients and therapy relevant cancer markers (e.g. AR-V7 transcripts or KRAS mutations) were identified in the majority of those cells.

This advanced approach will improve the predictive and prognostic value of CTC analysis in clinical practice and therefore lead to further advances in cancer research and patient care.

[1] El-Heliebi *et al.* " In Situ Detection and Quantification of AR-V7, AR-FL, PSA, and KRAS Point Mutations in Circulating Tumor Cells" Clin Chem. 2018 Jan4. pii:clinchem.2017.281295. doi: 10.1373/clinchem.2017.281295.

About GILUPI GmbH

GILUPI GmbH is a medical device company founded in 2006 with focus on the development and production of innovative products for the *in vivo* isolation of rare cells from the blood circulation. Currently, the main focus of GILUPI is the diagnostics market for cancer.

Individual oncological targeted therapies become increasingly important in personalized medicine. The identification of the right drug for the individual patient is today's challenge in clinical practice. To address this medical need, the GILUPI CellCollector® is used to enrich rare cells by immuno-capture



directly in the patient's bloodstream. This methodology has proven to yield highest cell numbers and patient positivity rates in various cancer types. Applying diagnostic analyses ranging from immunostaining, DNA- and RNA-based methods, isolated cells can be characterized and/or analyzed down to a molecular level.

The GILUPI CellCollector® is the first *in vivo* CTC isolation product worldwide that is CE approved.

For further information visit www.gilupi.com