



Improved detection of circulating tumor cells in prostate cancer patients using the GILUPI CellCollector® in combination with two blood-based assays

GILUPI GmbH announces the release of clinical data from a prostate cancer clinical study in December 2016. The scientific paper demonstrates the isolation of circulating tumor cells (CTCs) from blood of non-metastatic high-risk prostate cancer patients with the GILUPI CellCollector® [1].

Liquid biopsy - isolating and analyzing circulating tumor cells (CTCs) from the blood of prostate cancer patients - can provide additional information on prognosis of patients, treatment efficacy and molecular tumor evolution. Prof. Klaus Pantel, Dr. Kuske and further researchers from the department of tumor biology at the University Medical Center Hamburg-Eppendorf investigated the prognostic relevance of CTCs in non-metastatic prostate cancer. The goal of this study was to increase the sensitivity of CTC detection in patients with high-risk prostate cancer through the combination of three complementary assays. For this purpose the unique and innovative GILUPI CellCollector® *in vivo* technology was included in this study.

Peripheral blood was analyzed directly before and 3 month after radical prostatectomy to assess early dynamics in CTC counts. In total, 86 and 52 patients were enrolled before radical prostatectomy and 3 month after surgery, respectively.

In this clinical trial, combined application of the different CTC detection technologies revealed for the first time, a high incidence of CTCs in non-metastatic high-risk prostate cancer patients. Moreover, the researcher showed that the usual restriction of analyzing large blood volumes from cancer patients could be circumvented by GILUPI CellCollector® application, which resulted in equal or higher incidences CTC detection as comparator systems. More importantly, CTC rates detected by the GILUPI CellCollector® displayed a statistically significant decrease after surgery (66% to 34%, $p = 0.031$). These data revealed that after radical prostatectomy a reduced number of EpCAM-positive CTCs circulate in the blood stream, which is likely owed to the fact that the primary tumor as a major source of CTCs had been removed.

[1] Kuske *et al.* "Improved detection of circulating tumor cells in non-metastatic high-risk prostate cancer patients.", *Scientific Reports*, 2016 Dec 21; 6:39736. doi: 10.1038/srep39736. eCollection 2016.

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 immunocapture 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