Plasma S100P and hyaluronic acid (HA): markers for metastatic breast cancer (P-1157)

Keywords
- Discrimination between metastatic and non-metastatic breast cancer AUC of ROC curve = 0.85
- More accurate prediction of progression-free and overall survival than presence of CTCs
- More accurate prediction of treatment response than presence of CTCs
- Marker for diagnostic, prognostic and treatment monitoring of metastatic breast cancer

Abstract
The technology describes two serum/plasma markers, in combination or alone, for stage discrimination and prediction of survival as well as treatment response in breast cancer patients. Test statistics show that these markers perform better than established ones like the number of circulating tumor cells (CTCs).

Development Stage
Marker approved and verified in studies of 320 (S100P in combination with HA) and 334 (HA only) patients with different disease stages.

The Technology
Common ELISA technology has been used for detection of hyaluronic acid and S100P in plasma of breast cancer patients.

Applications and Commercial Opportunity
DKFZ is looking for a commercial partner to establish the test in a routine clinical setting.

Inventors
The investigators are: Burwinkel B., Yang R., Peng C., Schneeweiss A.

Intellectual Property
Priority patent application filed April 16th in 2014 “New Biomarkers for metastatic breast cancer” as EP 1416486 5.9; PCT see WO2015/158652

Further Information
No other public information is currently available, but further information (speaking with the inventor) is available under a signed Confidential Disclosure Agreement (CDA).

References

DKFZ Contact:
Dr. Frieder Kern
Deutsches Krebsforschungszentrum
Technology Transfer Office T010
Email: F.Kern@dkfz.de
Tel.: +49-(0)6221-42-2952

Figure:
ROC analysis of plasma HA in combination with S100P level changes indicating treatment outcome of metastatic breast cancer patients. AUC_{ΔS100P,HA} = 0.82; AUC_{ΔCTC} = 0.63