

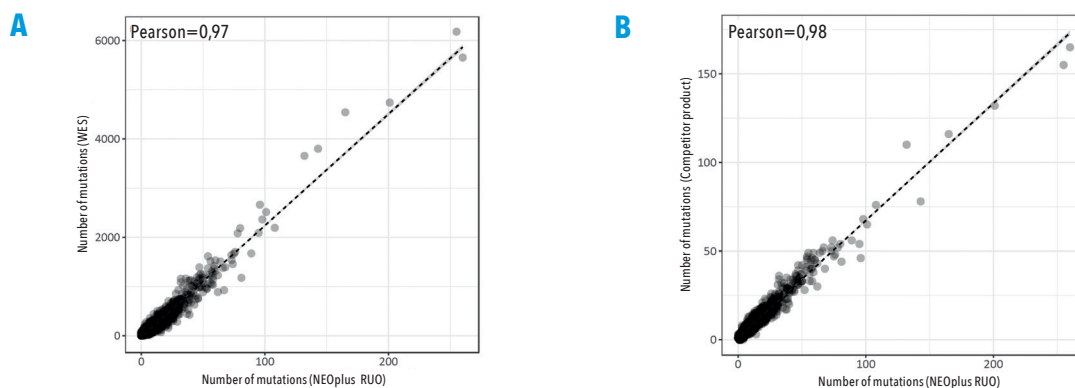
## Parallel analysis of tumor mutational burden and driver genes

- **One single assay for the parallel measurement of tumor mutational burden (TMB), microsatellite instability (MSI) and the detection of relevant gene alterations** (point mutations, copy number alterations) for clinical and translational research.
- NEOplus RUO covers more than 340 genes, including DNA repair genes (e.g. POLE) and predictors of immunotherapy response (e.g. B2M, STK11).
- The entire analysis is based on DNA only, thus enabling time-efficient and material-saving processes in the laboratory.
- Sample material: cryosections, cytologies, FFPE samples

## Assay overview

- The assay analyzes more than 340 genes
- NEOplus RUO covers an exonic territory > 1,1 Mb
- Selection of further analyzed driver gene alterations: point mutations (e.g. KRAS, BRAF, EGFR), InDels (e.g. EGFR, BRCA1/2, MET), gene fusions (e.g. ALK, ROS1, NTRK, FGFR) and copy number alterations (e.g. MET, ERBB2)

## In silico comparison of TMB assessment by NEOplus RUO with other methods



**A** Whole exome sequencing (WES) data from more than 3,000 samples were analyzed *in silico* using NEOplus RUO. The number of mutations in each territory is represented by individual data points. The determined TMB assessment with the exonic regions covered by NEOplus RUO shows a high correlation to the TMB determination by means of WES. Data source: The Cancer Genome Atlas (<https://cancergenome.nih.gov/>).

**B** The WES data from (A) were analyzed *in silico* with a competitor product used in recent studies and compared with the results of the NEOplus RUO analysis from (A). A high correlation of the detected mutations between the two products was shown.

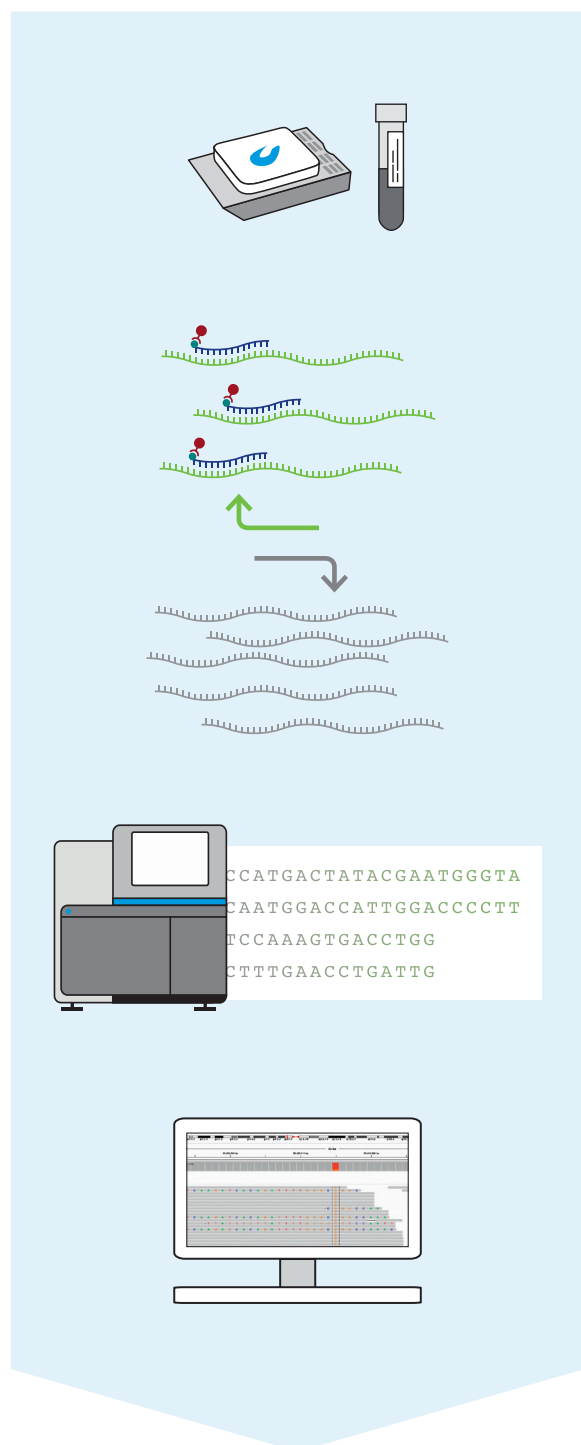


Recent studies demonstrated that TMB is an important emerging biomarker<sup>1</sup>.  
Expand your molecular testing capabilities with NEOplus RUO!

<sup>1</sup> Hellmann MD et al. N Engl J Med. 2018. doi: 10.1056/NEJMoa1801946

Tailored support for efficient cancer diagnostics in your laboratory

## NEOonsite – innovative molecular cancer profiling



**All hybrid capture-based assays can be performed on the NEOonsite platform:**

NEOmyeloid RUO – Analysis of myeloid disorders  
NEOplus RUO – TMB assessment  
NEOselect – Analysis of solid tumors  
NEOliquid – Liquid Biopsy Assay

**Innovative hybrid-capture NGS technology**  
for comprehensive and reliable results

Bioinformatic analysis with **full control on all raw and analysis files**

Comprehensive data evaluation and interpretation with the **user-friendly software NEOdiagnosis**