

(MS) have not been reached either in first- or second-line. However, when split according to methylation status, there was a trend toward better TTP and MS in both first- and second-line in p with methylated 14-3-3 $\sigma$ . TTP in second-line in p with methylated 14-3-3 $\sigma$  has not been reached, while it was 10.8 months (m) for p with unmethylated 14-3-3 $\sigma$  (P=ns). TTP in second-line in p with methylated CHFR was 5.2 m but was not reached for p with unmethylated CHFR (P=0.05).

**Conclusions:** Methylated 14-3-3 $\sigma$  can permit Cbl binding to mutant EGFR and predict longer-lasting response to erlotinib in p with EGFR mutations. The precise role of CHFR warrants further research. Complete data will be presented.

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BSTB: Prognostic Factors Posters, Tue, Sept 4

### The quantification of the catalytic subunit of telomerase in plasma is a prognostic factor in advanced non-small cell lung cancer (NSCLC) patients

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**Background:** Qualitative and quantitative analysis of circulating DNA in blood is a promising non-invasive diagnostic and prognostic tool. Our aim was to study the association between the free amount in plasma of the catalytic subunit of telomerase (hTERT) and several clinical variables in advanced NSCLC patients.

**Methods:** We examined 451 NSCLC patients in stage IIIB and IV, treated with cisplatin and docetaxel. Blood samples were collected before chemotherapy, and circulating DNA was extracted from the serum using commercial adsorption columns. The amount of free hTERT in plasma was quantified by using RT-PCR.

**Results:** Median age was 61 years [35-82] and 84% were males. 99% had performance status 0-1. 84% were in stage IV and 16% in stage IIIB. The histological subtypes were: 32% squamous cell carcinoma, 50% adenocarcinoma, 14% anaplastic large cell, and 4% undifferentiated. 41% of the patients received second line chemotherapy. 1% achieved complete response (CR), 36% partial response (PR), 35% had stable disease (SD) and 28% progressive disease (PD). Median hTERT value was 4856 ng/ml; for patients in IIIB was 48 ng/ml [2-9648] and 48 ng/ml [0.6-43735] in stage IV (p=0.75). There was not association between hTERT values and response to therapy. hTERT values were not related with the localization of the metastasis. Dividing the cohort in two sets according to hTERT median we found two significantly different groups in terms of Overall Survival (OS) and Time To Progression (TTP). Patients with hTERT <48 ng/ml had a median TTP of 5.3 months (m) [4.4-6.1] while for hTERT >48 ng/ml was 4.1 m [3.5-4.6], (p=0.0009). OS when hTERT <48 ng/ml was 10.1m [4.9-11.3] and for hTERT >48 ng/ml was 8.4 m [7.2-9.5], (p=0.01). In the multivariate analysis, hTERT was an independent predictive variable for TTP (HR 1.39, CI 95% 1.1-1.7, p=0.002) and OS (HR 1.27, CI 95% 1.1-1.6, p=0.04).

**Conclusions:** In advanced NSCLC patients, the quantification of free circulating hTERT in plasma is an affordable and valuable prognostic marker. High plasma hTERT levels are a poor prognostic indicator for TTP and OS.

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### Prognostic impact of Epidermal Growth Factor Receptor (EGFR) concentration in plasma in advanced non-small cell lung cancer (NSCLC) patients

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**Background:** EGFR has an extracellular ligand-binding domain that can be proteolytically cleaved from the cell surface and can be accurately quantified in blood by ELISA. We have investigated the usefulness of plasma EGFR measurements as prognostic marker in advanced NSCLC.

**Methods:** The cohort consisted in 329 patients (p) with advanced NSCLC that received first-line therapy with cisplatin and docetaxel. The concentration levels of the EGFR extracellular binding domain were determined by a sandwich quantitative ELISA in the baseline, before therapy.

**Results:** Median age was 61, range [39-80], 84% males, 100% caucasian, 68% stage IIIB and 32% IV and 99% PS 0-1. The histological subtypes were: 31% squamous cell carcinoma, 49% adenocarcinoma, 15% large cell, and 5% undifferentiated. 181 p achieved complete response (CR), partial response (PR) or stable disease (SD) and 109 p progressive disease (PD). Median patient's plasma levels of EGFR were 32.4 ng/ml. There were not differences in p according to histology, site of metastasis and ECOG. There were differences in response to therapy; CR+PR+SD p presented median EGFR of 31.97 ng/ml [13.2-48.6] vs 30 ng/ml [16.9-46.8] in the PD group (p=0.024). Dividing the cohort in two sets according to EGFR median we found two significantly different groups in terms of Overall Survival (OS) and Time To Progression (TTP). Patients with EGFR<32.4 ng/ml had a median TTP of 3.9 months (m) [3.3-4.6] while for EGFR>32.4 ng/ml was 4.7 m [4.0-5.4], (p=0.024). OS when EGFR<32.4 ng/ml was 6.9 m [5.9-7.8] and for EGFR>32.4 ng/ml was 9.1 m [8.2-10.1], (p=0.038).

**Conclusions:** Patients with PD presented significantly lower levels of serum EGFR than those patients with CR+PR+SD. There is a relationship among lower EGFR concentration in serum with a worst prognosis in advanced NSCLC p in terms of TTP and OS.

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### Prognostic value of the determination of K-ras mutations plasma in advanced non-small cell lung cancer (NSCLC) patients

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**Background:** Qualitative analysis of circulating DNA in blood is a promising non-invasive diagnostic and prognostic tool. Our aim was to