

## SUPPLEMENTARY FIGURE LEGENDS:

**Figure S1.** FISH *EGFR* of glioblastoma cell line BS-153.

FISH analysis was performed on metaphase spreads of the glioblastoma cell line BS-153. The label for the *EGFR* is red; for the centromere of chromosome 7 green, and for the centromere of chromosome 12, blue. Amplification of the *EGFR* seems to be based on extra-chromosomal copies of *EGFR* (probably amplicons). There is a signal of *EGFR* at the expected locus on chromosome 7, and no indication of integration into another chromosomal region. The BS-153 glioblastoma cells are aneuploid for chromosome 7 and chromosome 12.

**Figure S2.** Gefitinib concentrations in the tumor tissue and plasma.

Gefitinib concentrations measured in the tumor tissue and plasma are displayed by the time of sample collection [h:min]. Information of time of collection was available for 16 tumor tissues and 17 plasma samples. One patient did not take the drug on the day of surgery (>24h), reflected in very low drug concentrations in the tumor and the plasma, respectively.

**Figure S3.** Effect of gefitinib on EGFR pathway signaling transducers. Fourteen signaling transducers of the EGFR pathway were measured by bioplex technology in tumor tissues under gefitinib treatment (T1, red) or controls (T0, blue). The log<sub>2</sub>-intensities of the phospho-proteins, normalized by tot-Erk-1/2, are represented by box plots, stratified by the EGFR amplification status (A1, amplified; A0, not amplified).

**Figure S4.** Pairwise comparisons of phospho-proteins. A matrix of scatterplots of the bioplex values (n=25 tumor samples, table normalized by t-Erk1/2) is shown: the  $ij^{th}$  scatterplot contains the  $i^{th}$  variable plotted against the  $j^{th}$  variable. The lower triangle contains the cloud point representation between each pair of variables (the trend curve obtained by loess smoothing is depicted in red). The upper triangle contains the values of the Pearson correlation coefficients. The text size is proportional to the strength of the relationship between each pair of variables. The histograms of the distribution are given for each phospho-protein on the diagonal.

**Figure S5.** Histograms of protein analysis. Barplot representations of intensities of the phospho-proteins normalized to tot-Erk-1/2, determined by Bio-Plex technology. EGFR amplification status (amplified, dark green; not amplified, light green), recurrence status (recurrence, dark; otherwise, light gray), and tumor tissues under gefitinib treatment (T1, red) or controls (T0, blue) are labeled by the figures in the bottom.