**Supplementary Figures Legends to “Treatment outcome of atypical *EGFR* mutations in the German National Network Genomic Medicine Lung Cancer (nNGM)” by M. Janning, et al.,**

**Supplementary Figure S1: Response of different type of exon 20 insertions in the 1L (A-F) and all lines cohort (G-L)**. **A:** Frequency of C-helix exon20ins (AA761-766), near loop (AA767-772) and far loop insertions (AA773-776). **B:** Distribution of treatments. **C:** Distribution of applied EGFR-TKI. **D:** PFS for near loop insertions. **E:** PFS for far loop insertions. **F:** PFS for near loop insertions by EGFR-TKI. **G:** Frequency evaluable treatment of C-helix exon20ins (AA761-766), near loop (AA767-772) and far loop insertions (AA773-776) in the all lines group, independent of treatment line. **H:**Distribution of treatment. **I:**Distribution of applied EGFR-TKI. **J:**PFS for near loop insertions. **K:**PFS for far loop insertions. **L:**PFS for near loop insertions only by EGFR-TKI., NL, near loop; FL, far loop.

**Supplementary Figure S2**: **Swimmer plots** for each mutation per main group 1-3 (uncommon, exon 20 insertion, very rare) and subcategory for 1L treatment with EGFR-TKI and „all lines“ treatment regardless of treatment line. Black arrows indicate ongoing survival for 1L and ongoing PFS for the „all lines“ group, for the latter only PFS is displayed. TL, treatment line.

**Supplementary Figure S3: Co-mutations. A**: Boxplots indicate percent and number of cases with or without co-mutations and cases for which co-mutations were not reported. **B:** Pie chart indicating distribution of 13 overlapping genes of the customized panels used in 96% of the cases: *BRAF, CTNNB1, EGFR, ERBB2, KRAS, MAP2K1, MET, NRAS, PIK3CA, PTEN* and TP53. **C**: Distribution of all reported co-mutations (obtained by different NGS analyses). **D&E:**Boxplots indicating frequency of co-mutations per main atypical *EGFR* mutation group (D) and per subgroups (E). **F**: Boxplot showing frequency of *TP53* mutations per main atypical *EGFR* group. **G-I:** Kaplan Meier plots for response to EGFR-TKI by T*P53* mutational status for uncommon, group1 *EGFR* mutations (G), exon 20 insertions, group 2(H) and very rare *EGFR* mutations (I).