





**Figure S3.** Comparison of mutant allele fractions and mutation detection rates with demographic and pathological characteristics of patients in the UBC group. **(a-d)** Box plots for tumor grades. **(e-h)** Box plots for tumor stages. Due to low incidence of stages II-IV, these cases were summarized as “II+” group. **(i-l)** Box plots for history of smoking. **(m-o)** Scatter plots for mutant allele fraction and age. Mutant allele fraction was assessed using digital droplet polymerase chain reaction on a QX200 AutoDG ddPCR System (Bio-Rad Laboratories, Inc).  $R^2$  - coefficient of determination. Samples negative for the studied mutations were excluded from the quantitative comparisons (and for the assessment of correlation). *GPR126* 6<sup>th</sup> intron mutations: G/A substitution – chr. 6: 142,706,206; C/T substitution – chr. 6: 142,706,209 (assembly GRCh37). *TERT* promoter (*pTERT*) mutations: G/A substitution at -124 bp, chr. 5: 1,295,228; G/A substitution at -146 bp, chr. 5: 1,295,250 (assembly GRCh37).