

**Supplementary Data 1. Functional EGFR variant enrichment scores.** Data are presented as Z-score values. A two-tailed t-test was performed to calculate p-values for each EGFR variant.

**Supplementary Data 2. Identification of novel EGFR variants.** Data are presented as Z-score values, with a cut-off of Z-score  $> 2$ . A two-tailed t-test was performed to calculate p-values for each EGFR variant. A literature comparison was performed to determine EGFR variant overlap from other EGFR variant studies.