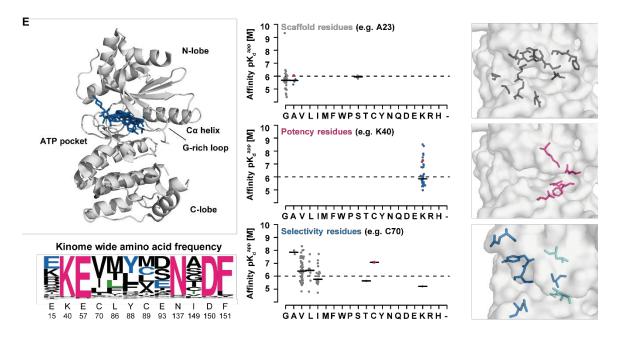


**Fig. S9 I Clinical drugs for potential kinase targets (A)** Kinobead based kinase expression heat map of healthy (grey) and tumour (blue) tissue from 15 NSCLC patients. Columns and rows are ordered according to the results from a supervised clustering (dendrogram) of significantly regulated kinases. (B) Combined Kaplan-Meier analysis of MELK in squamous cell carcinoma (SCC) and adenocarcinoma (ADC). (C) Kaplan-Meier analysis of EGFR in SCC, ADC and combined analysis. (D) Kaplan-Meier analysis of DDR1 in SCC, ADC and combined analysis. P-values were obtained from a log rank test.



**Fig. S9 continued I Clinical drugs for potential kinase targets** (E) Co-crystal structures of MELK with Nintedanib, K-252a, PF-3758309, Defactinib and BI-847325 (left panel; superimposed compound structures in the ATP pocket in blue). The sequence logo shows kinome wide frequency of drug-interacting residues. Drug-interacting residues are classified as scaffold (grey), potency (pink) and selectivity (blue) residues (middle panel) and are localized within the ATP-pocket (right panel). A complete list of all residues plus classification is provided in Table S10.