Description of additional supplementary files

File name: Supplementary Data 1

Description: Summary of SV signature burden and correlates

File name: Supplementary Data 2

Description: Summary of ME insertions identified by TraFic

File name: Supplementary Data 3

Description: Variables used for logistic regression analysis

File name: Supplementary Data 4

Description: Output of logistic regression of SV signatures

File name: Supplementary Data 5

Description: Summary of SV clusters, ME and Amplicon Architect intervals

File name: Supplementary Data 6

Description: List of tumours with KRAS ecDNA and number of ME clusters

File name: Supplementary Data 7

Description: Enhancer regions with no annotated genes in ecDNA amplicons

File name: Supplementary Data 8

Description: Amplicon copy number and gene expression

File name: Supplementary Data 9

Description: Two proportions z test for driver genes altered by SVs

File name: Supplementary Data 10 **Description:** SV driver hotspots

File name: Supplementary Data 11

Description: Breakdown of cases and SV types in SV driver genes

File name: Supplementary Data 12 **Description:** Non-COSMIC driver SV **File name:** Supplementary Data 13

Description: RUNX1 exons and enhancers deleted in 79 patients

File name: Supplementary Data 14

Description: PCR validated SVs in RUNX1 in tumours and cell lines

File name: Supplementary Data 15 **Description:** PCR validation of SV events

File name: Supplementary Data 16

Description: RS Regression covariates with hold out