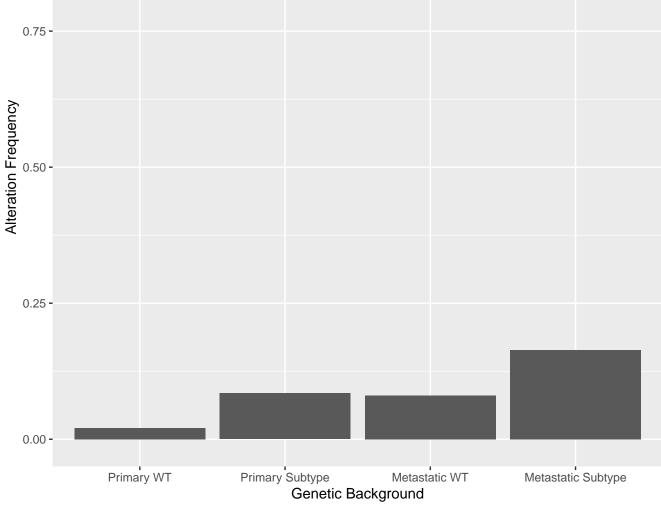
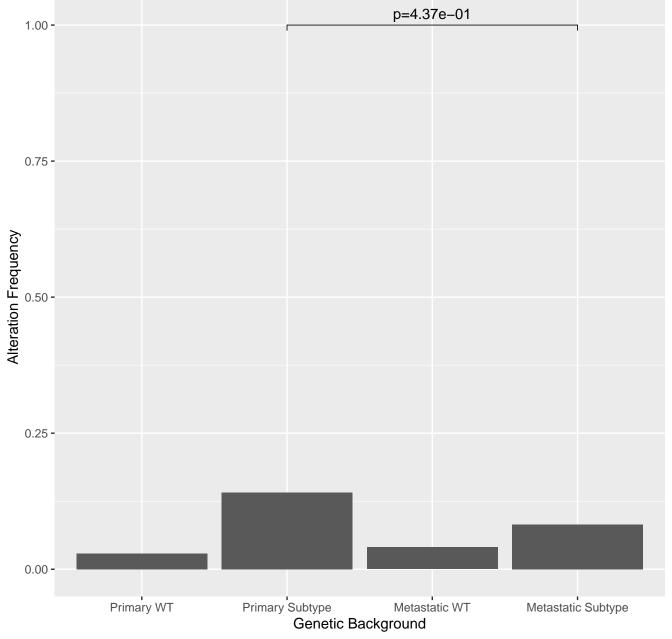
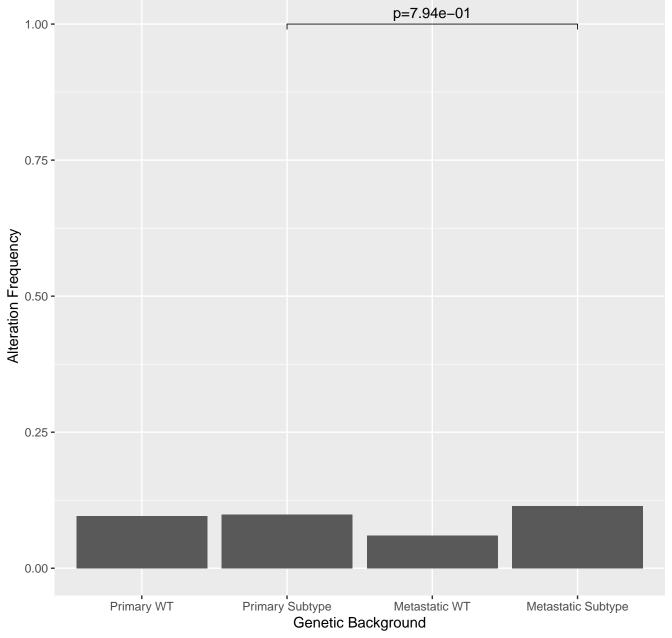
KIAA0141 LOF Alterations p=2.09e-01 1.00 -



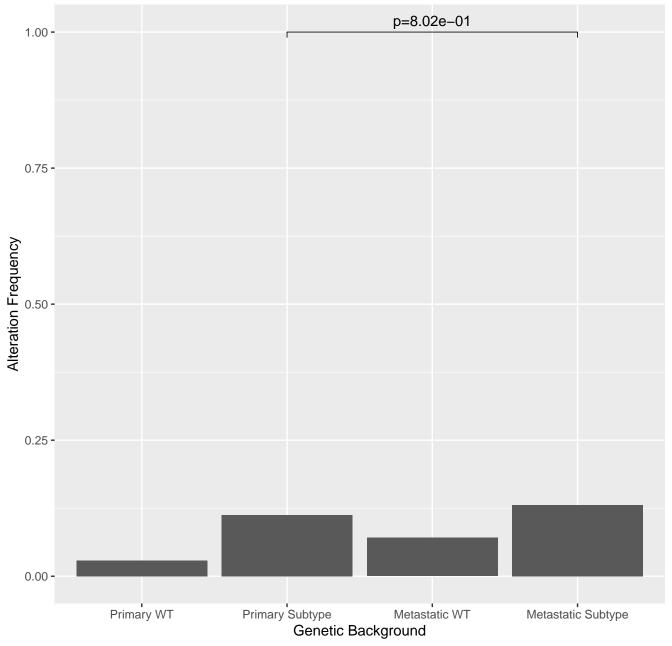
AMBRA1 LOF Alterations



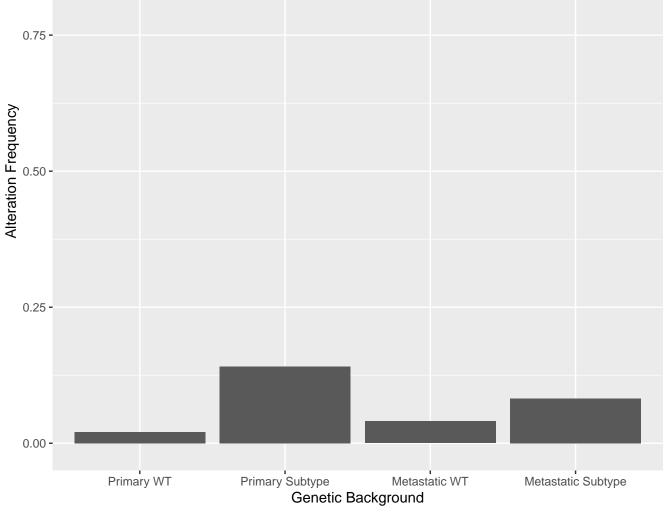
ATP6V0A1 LOF Alterations



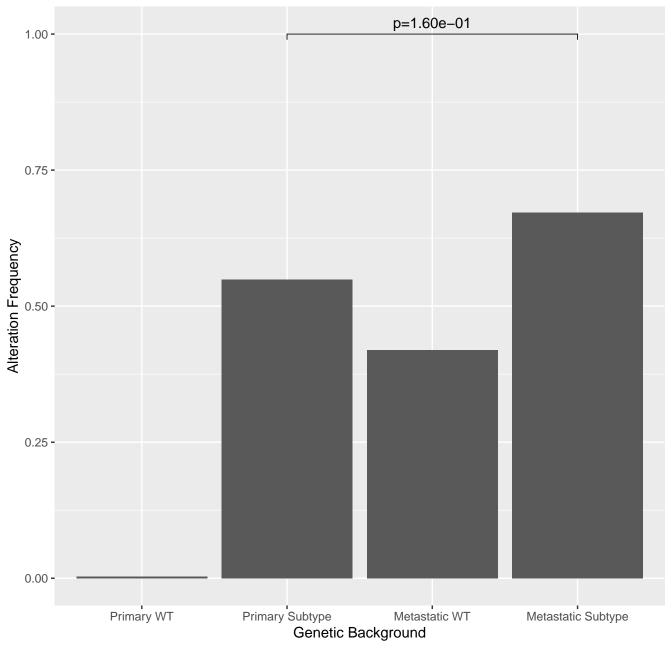
ANGEL2 LOF Alterations



ALKBH3 LOF Alterations p=4.37e-01 1.00 -



LMBRD1 LOF Alterations



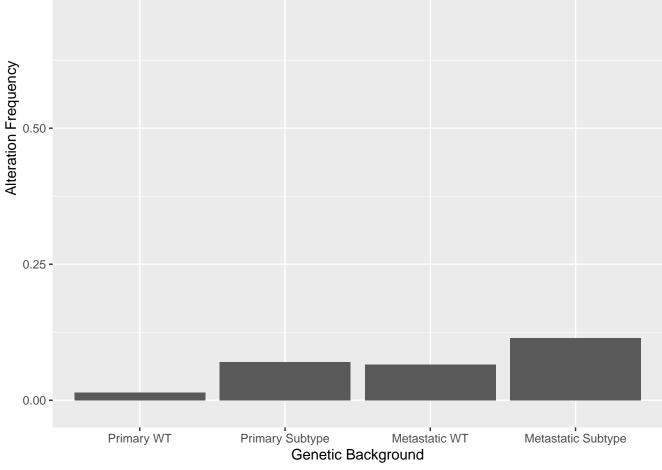
NSL1 LOF Alterations p=8.02e-01 1.00 -0.75 -0.50 -0.25 -0.00 -Primary Subtype Metastatic WT Primary WT Metastatic Subtype

Genetic Background

RNMT LOF Alterations p=2.43e-01 1.00 -0.75 -0.50 -0.25 -0.00 -Primary Subtype Primary WT Metastatic WT Metastatic Subtype

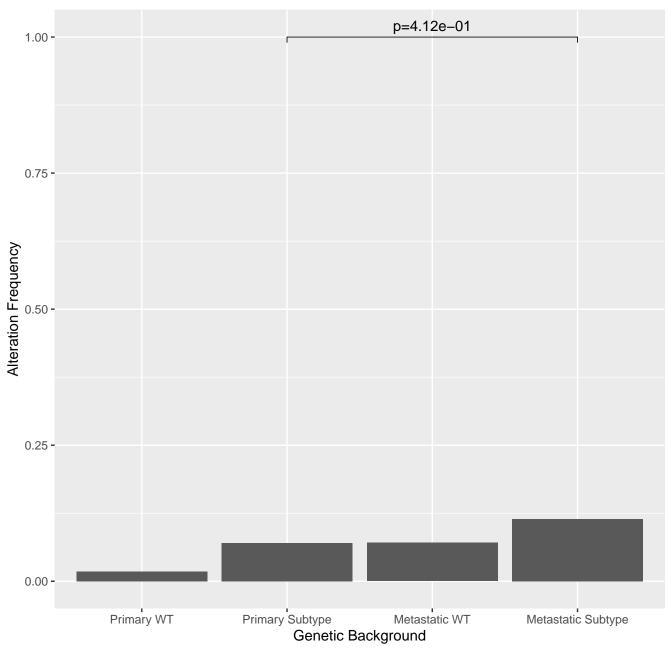
Genetic Background

MRPL14 LOF Alterations p=4.12e-01 1.00 -0.75 -

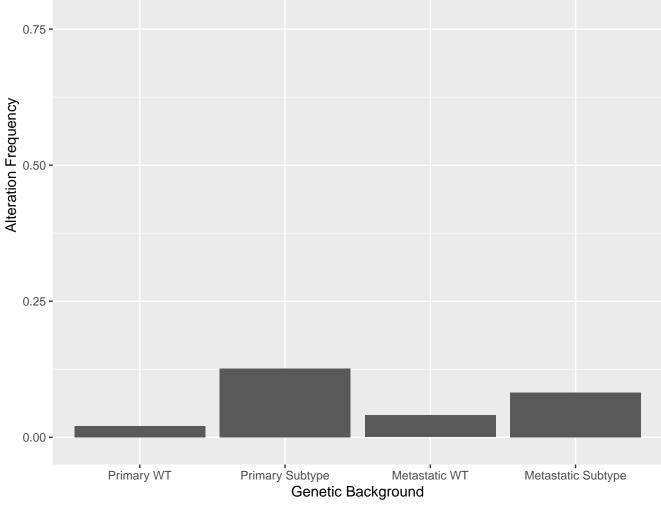


NAPG LOF Alterations p=3.59e-01 1.00 -0.75 -0.50 -0.25 -0.00 -Primary Subtype Primary WT Metastatic WT Metastatic Subtype Genetic Background

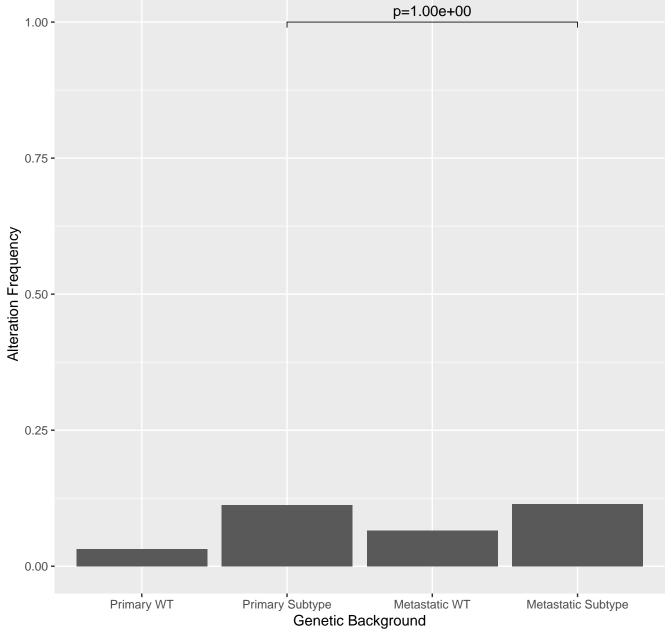
ZNF76 LOF Alterations



API5 LOF Alterations p=5.95e-01 1.00 -



OLFML3 LOF Alterations



MADD LOF Alterations p=4.60e-01 1.00 -0.75 -0.50 -0.25 -0.00 -Primary Subtype Primary WT Metastatic WT Metastatic Subtype

Genetic Background

MPPE1 LOF Alterations p=1.68e-01 1.00 -0.75 -0.50 -0.25 -0.00 -

Primary Subtype

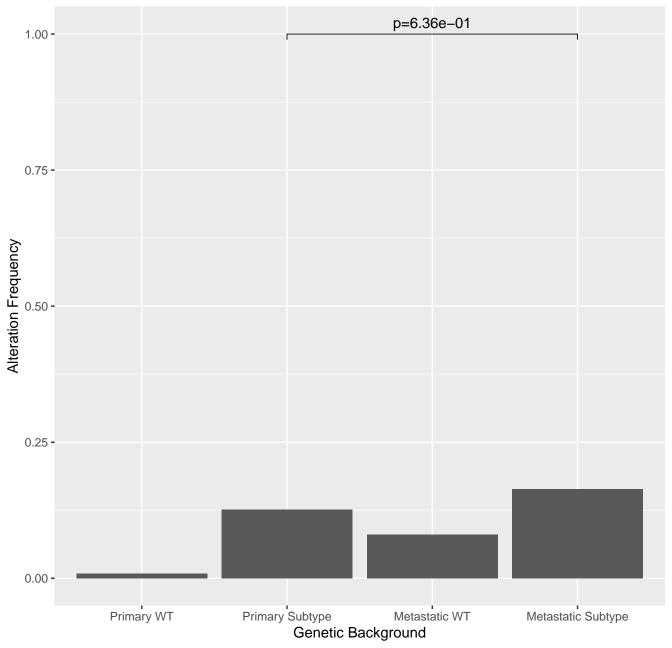
Genetic Background

Metastatic WT

Metastatic Subtype

Primary WT

ELP4 LOF Alterations



NAT10 LOF Alterations p=1.00e+00 1.00 -0.75 -0.50 -0.25 -0.00 -Primary Subtype Primary WT Metastatic WT Metastatic Subtype Genetic Background

MTCH2 LOF Alterations p=4.60e-01 1.00 -0.75 -0.50 -0.25 -0.00 -

Primary Subtype

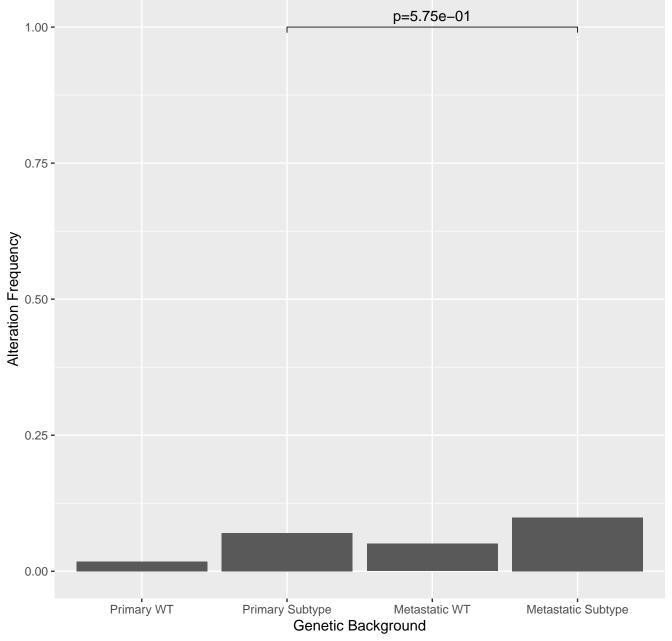
Genetic Background

Metastatic WT

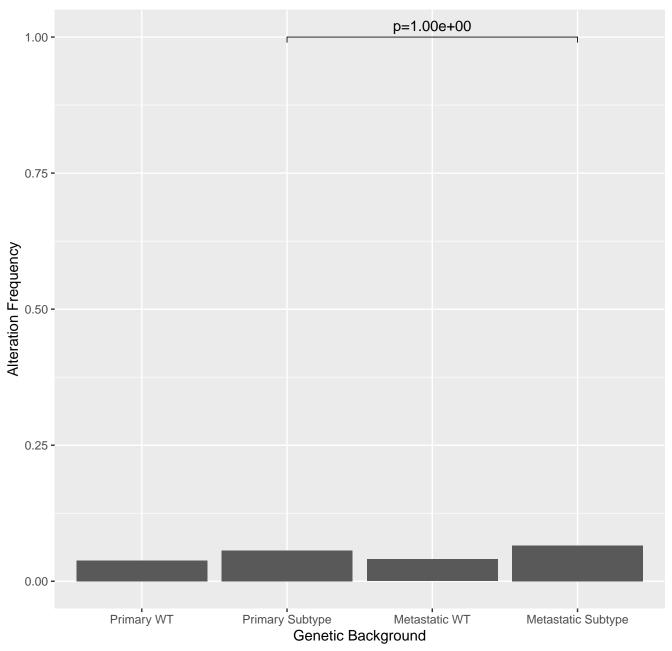
Metastatic Subtype

Primary WT

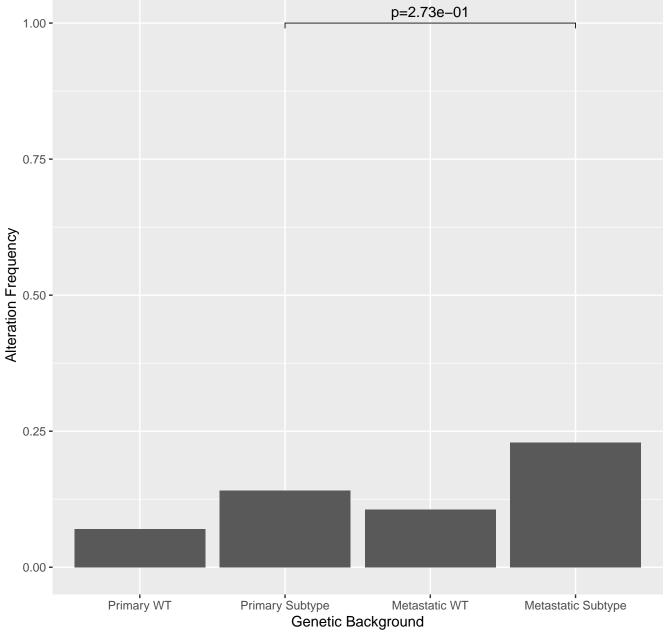
CYP21A2 LOF Alterations



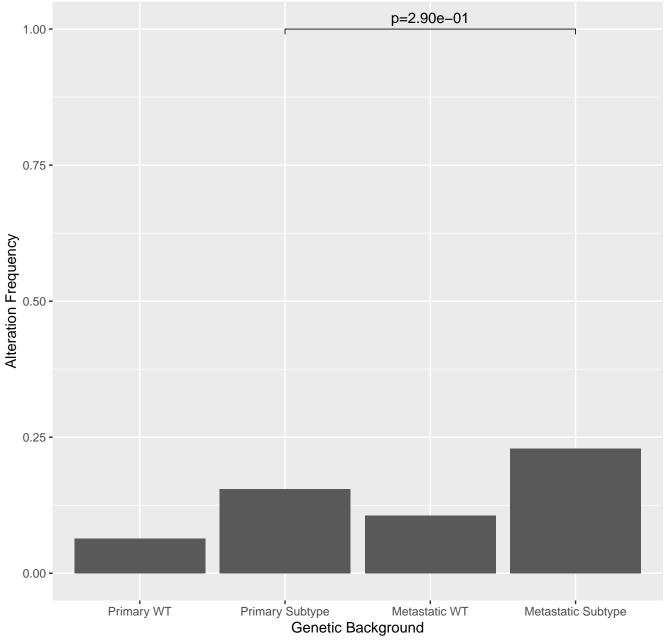
TCEA1 LOF Alterations



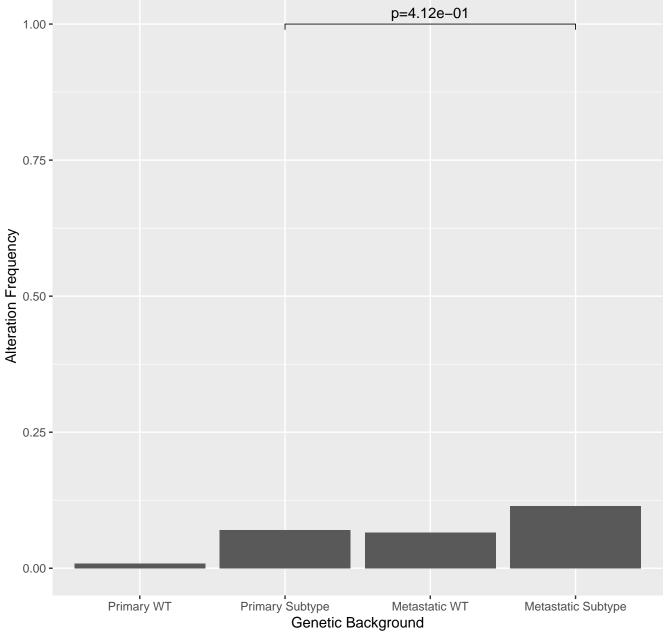
RPS6KA2 LOF Alterations



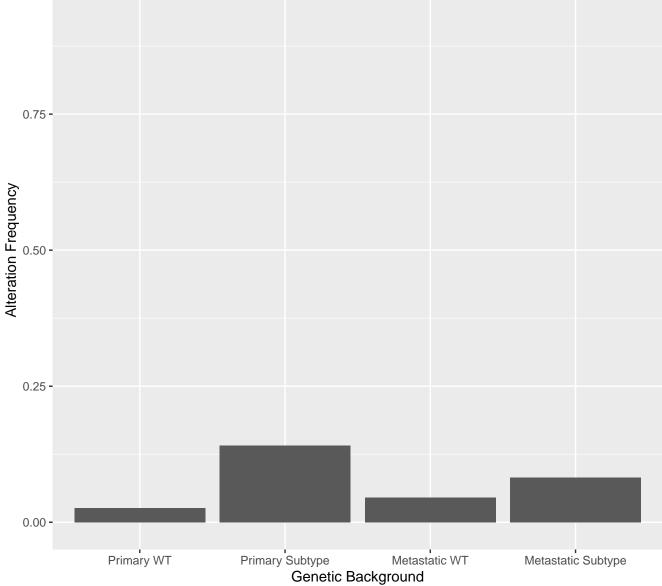
SFT2D1 LOF Alterations



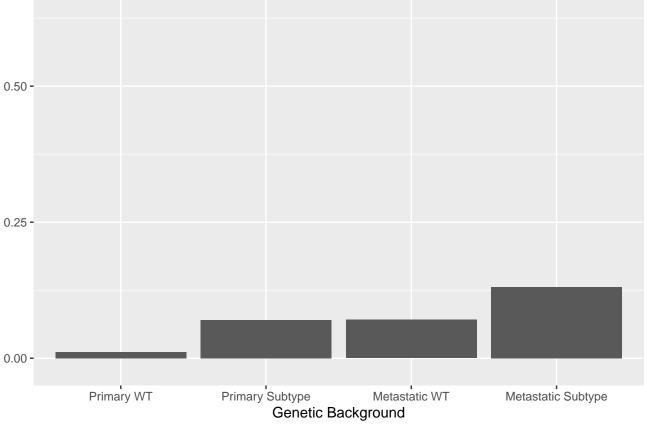
LEMD2 LOF Alterations



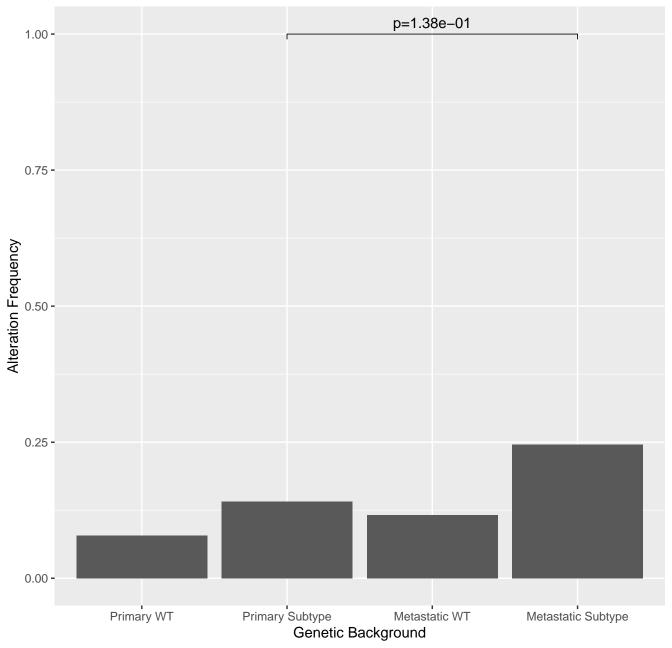
PHF21A LOF Alterations p=4.37e-01



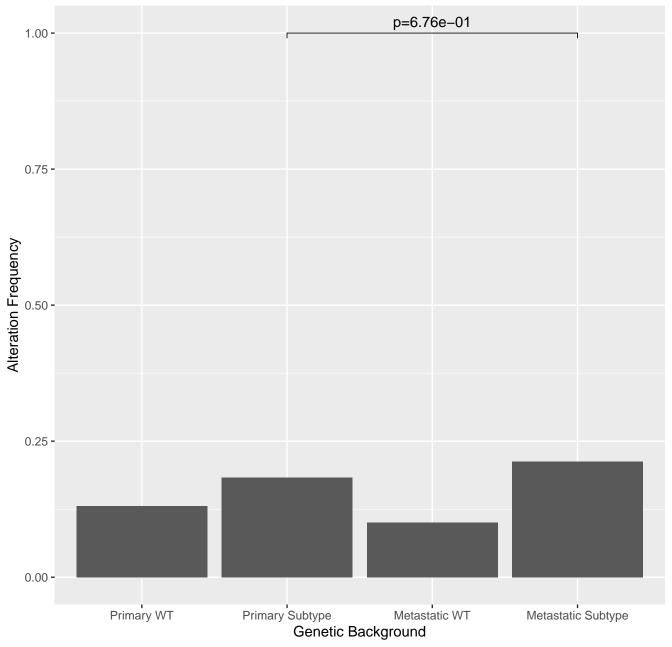
NFKBIE LOF Alterations p=2.84e-01 1.00 -0.75 -0.50 -0.25 -



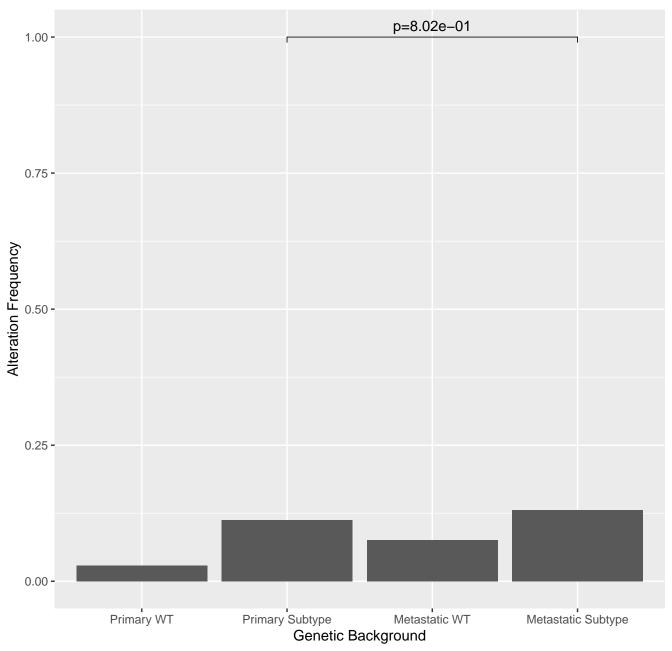
LPIN2 LOF Alterations



SS18 LOF Alterations



TATDN3 LOF Alterations



RING1 LOF Alterations p=4.12e-01 1.00 -0.75 -0.50 -0.25 -0.00 -

Primary Subtype

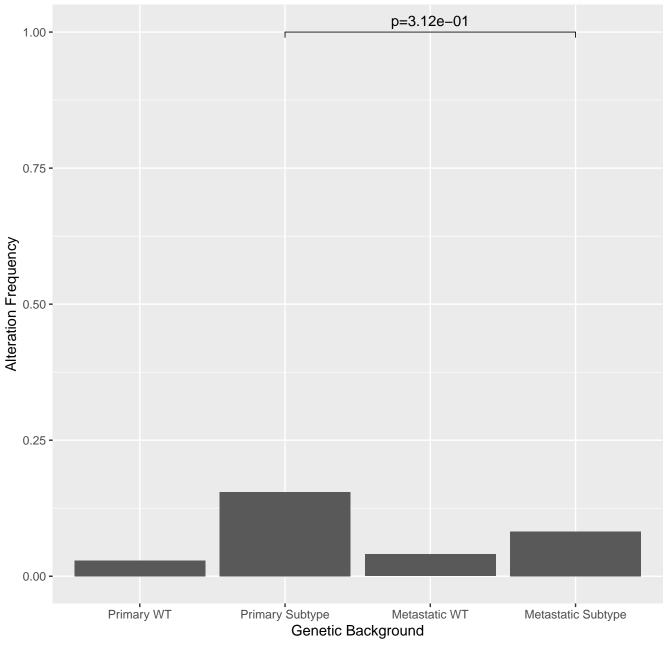
Genetic Background

Metastatic WT

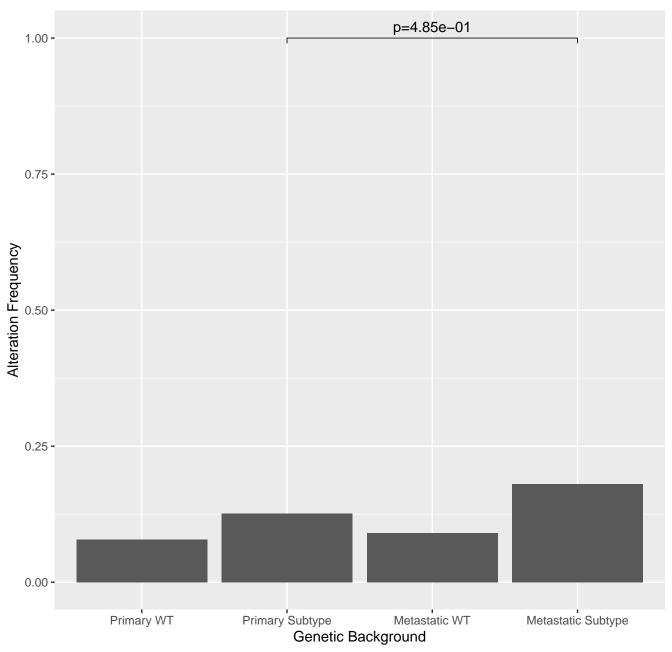
Metastatic Subtype

Primary WT

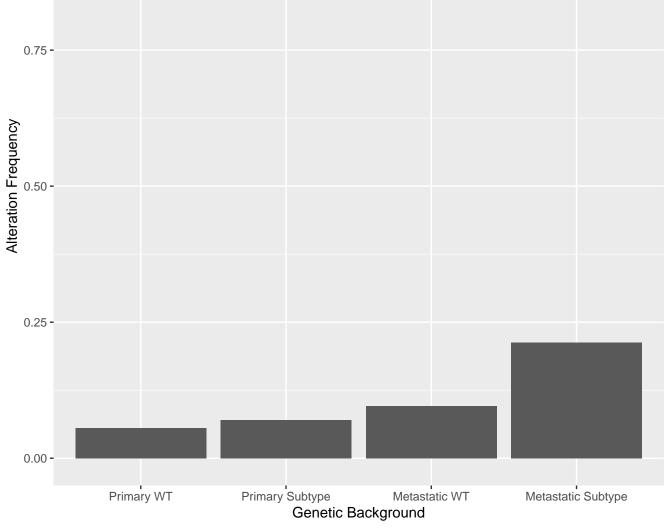
ARFGAP2 LOF Alterations



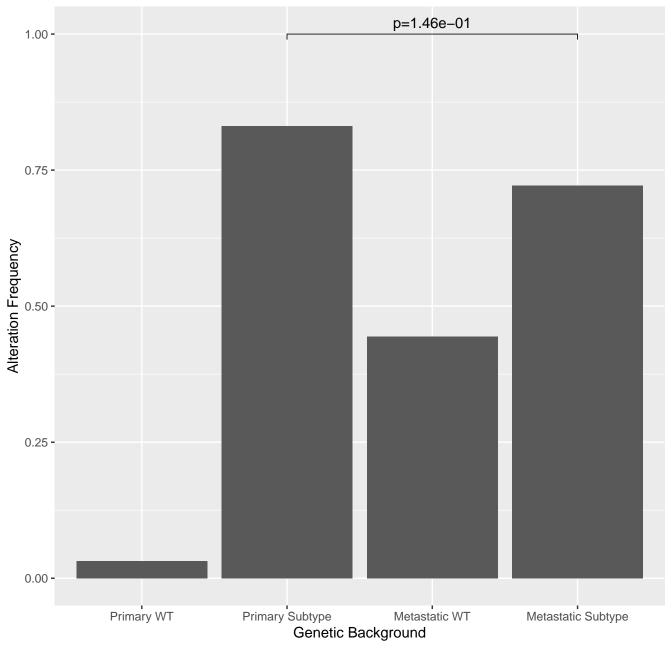
TWSG1 LOF Alterations



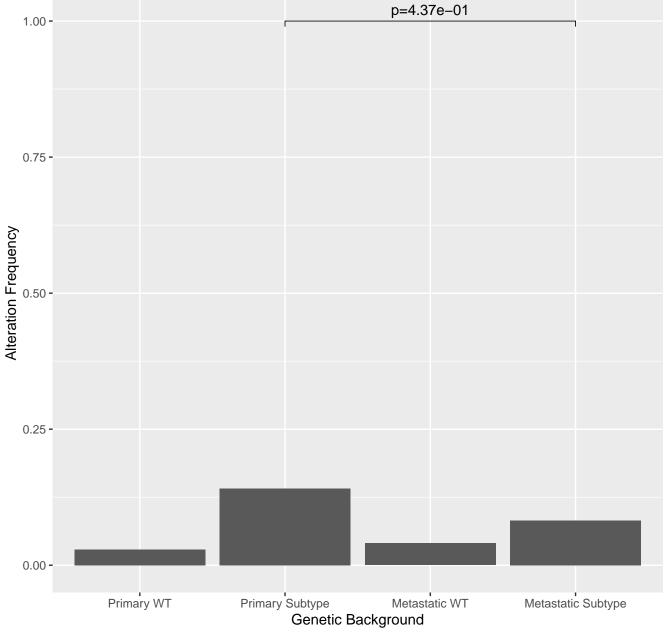
CCDC8 LOF Alterations p=2.82e-02 1.00 -



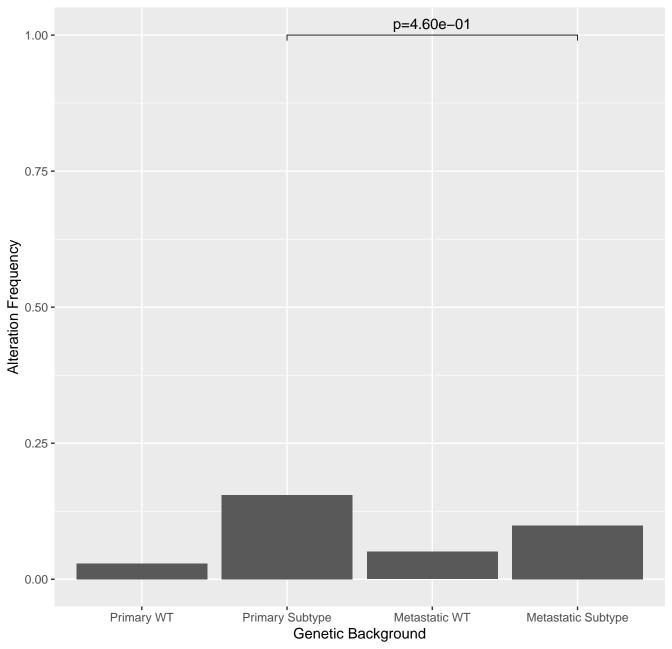
NT5DC1 LOF Alterations



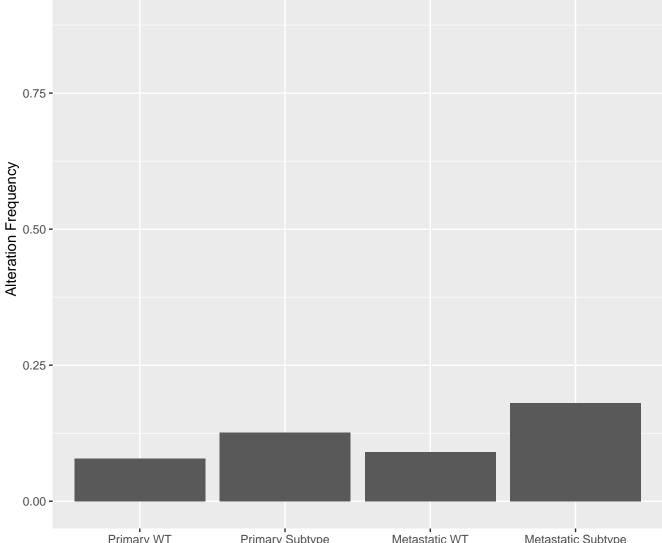
EXT2 LOF Alterations



FNBP4 LOF Alterations

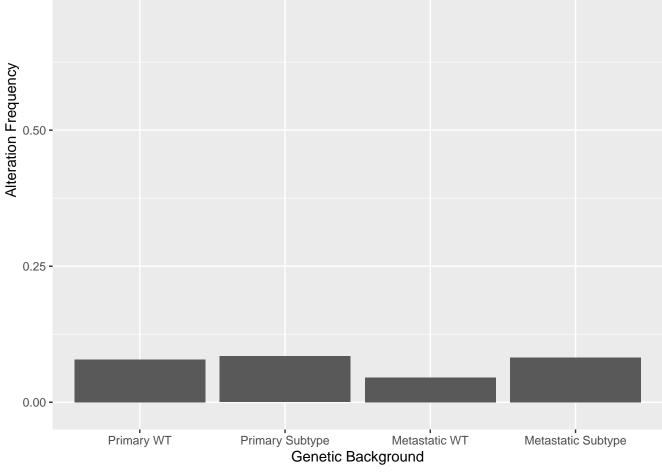


PPP4R1 LOF Alterations p=4.85e-01 1.00 -

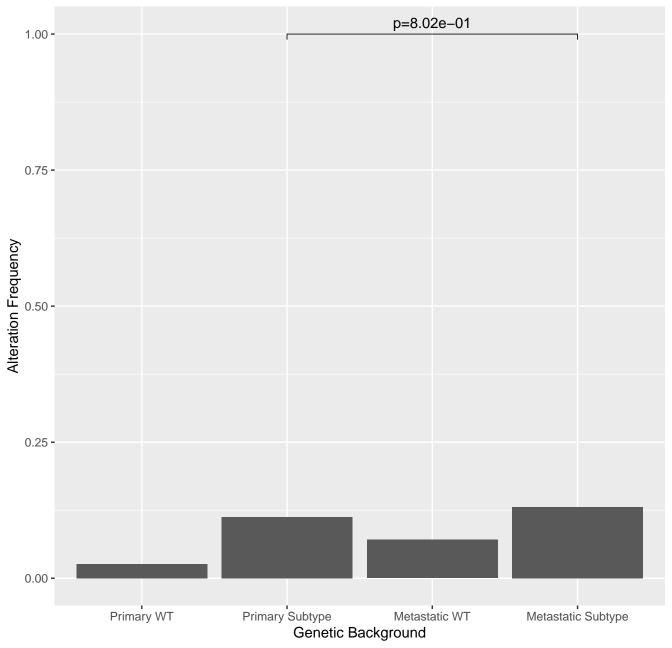


Primary Subtype Primary WT Metastatic WT Metastatic Subtype Genetic Background

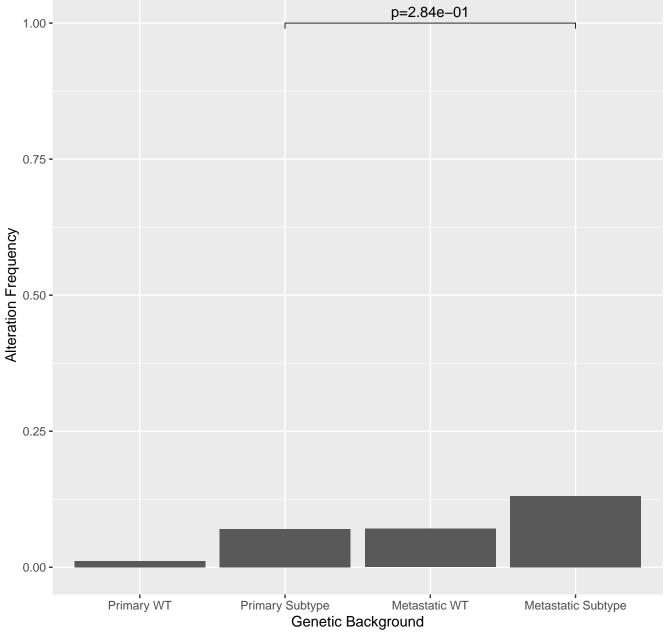
IFI35 LOF Alterations p=1.00e+00 1.00 -0.75 -



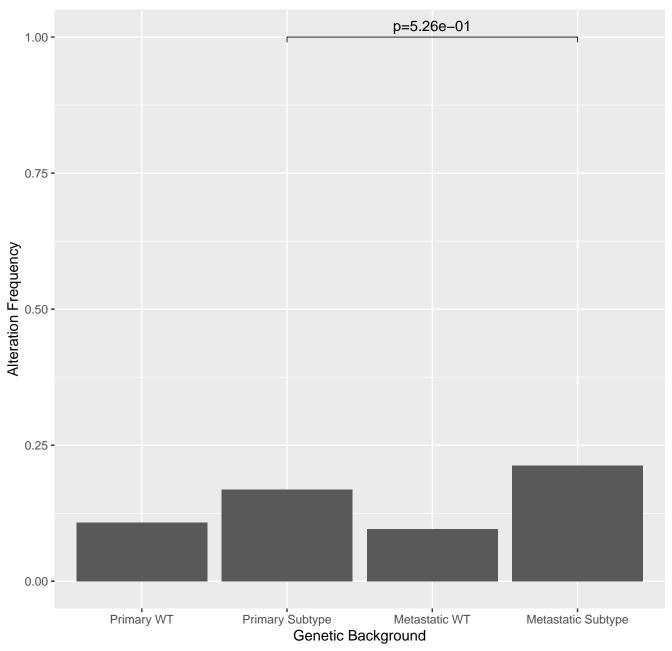
FLVCR1 LOF Alterations



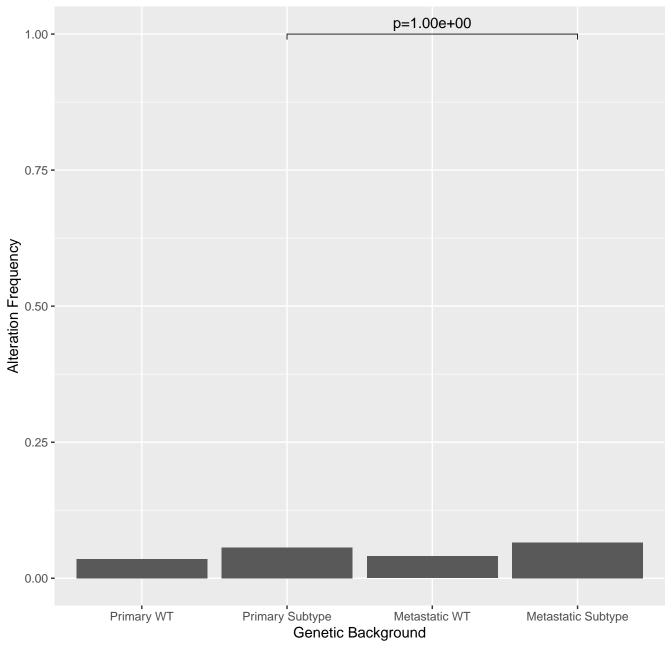
CCND3 LOF Alterations



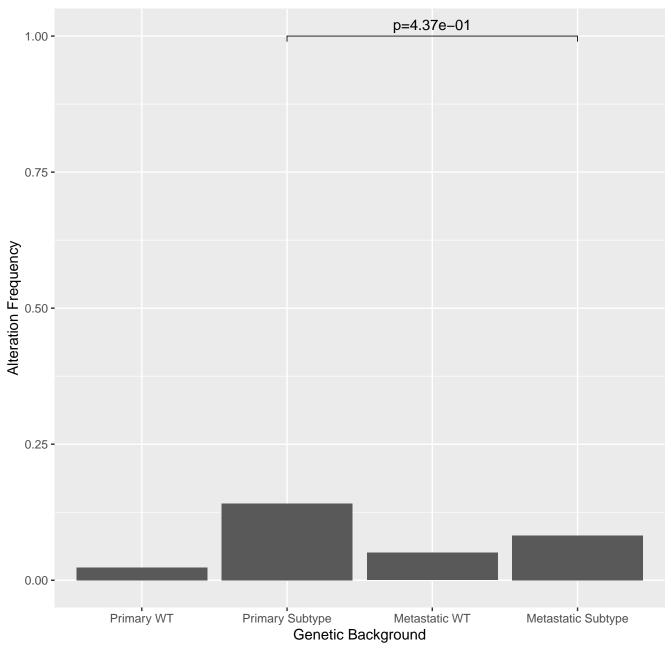
ESCO1 LOF Alterations



TGS1 LOF Alterations



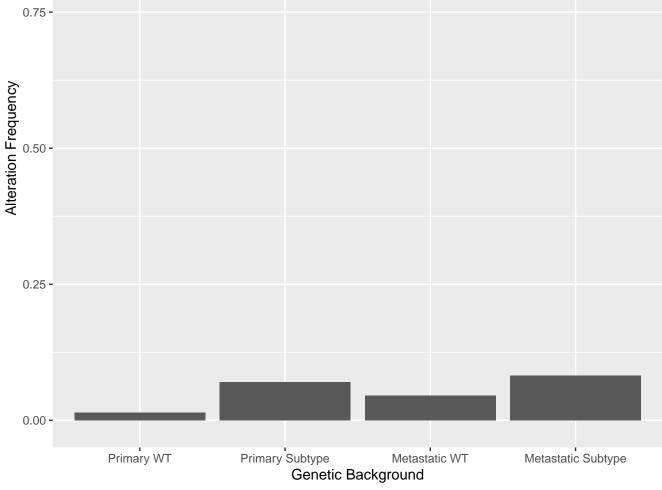
ZNF408 LOF Alterations



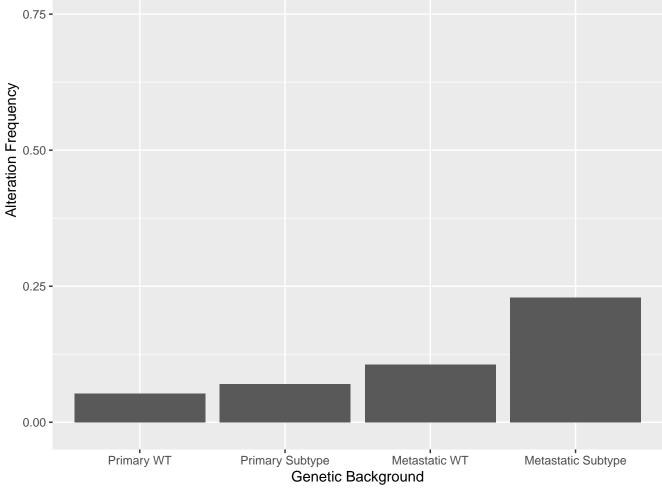
ACP2 LOF Alterations p=3.12e-01 1.00 -0.75 -0.50 -0.25 -0.00 -Primary Subtype Metastatic Subtype Primary WT Metastatic WT Genetic Background

Alteration Frequency

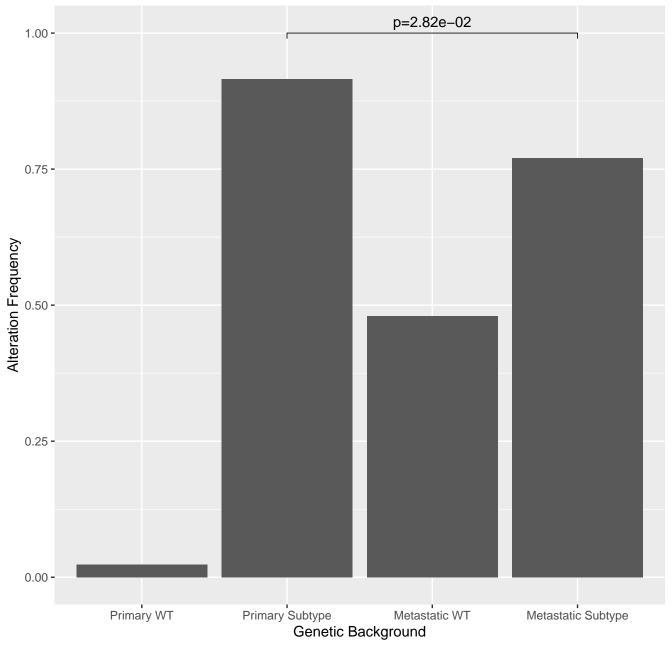
IL10 LOF Alterations p=1.00e+00 1.00 -



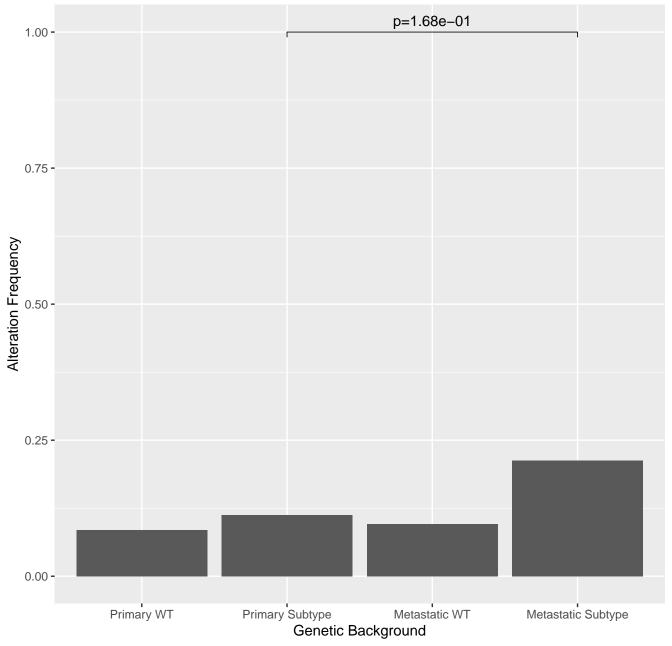
PNMAL1 LOF Alterations p=1.64e-02 1.00 -



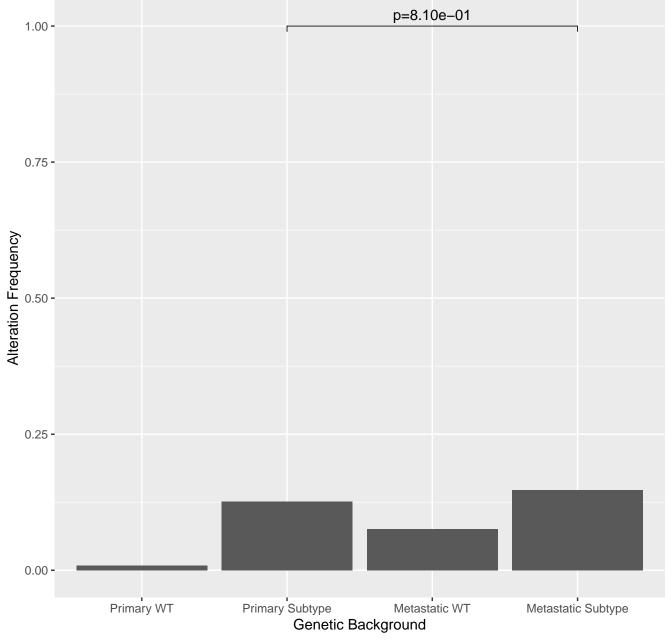
HDAC2 LOF Alterations



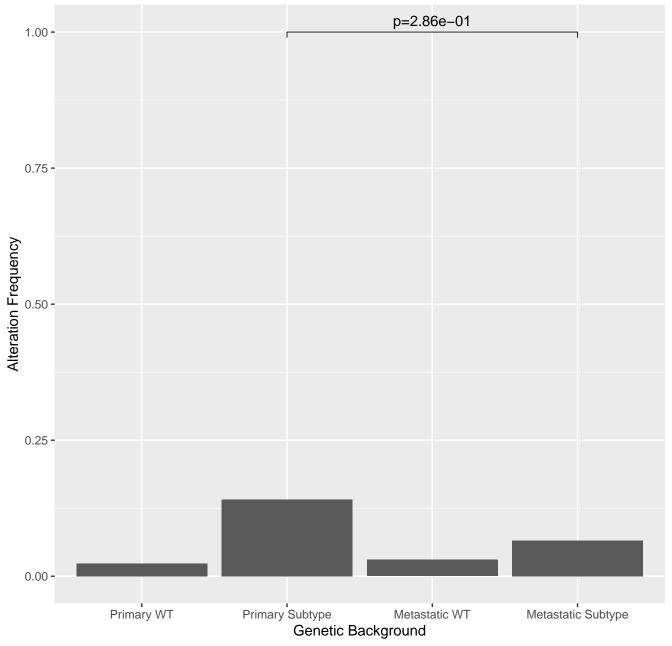
CHMP1B LOF Alterations



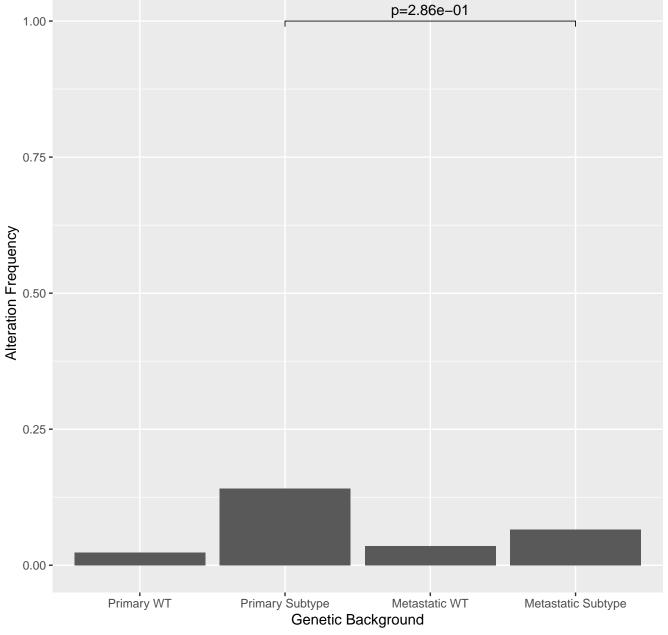
DNAJC24 LOF Alterations



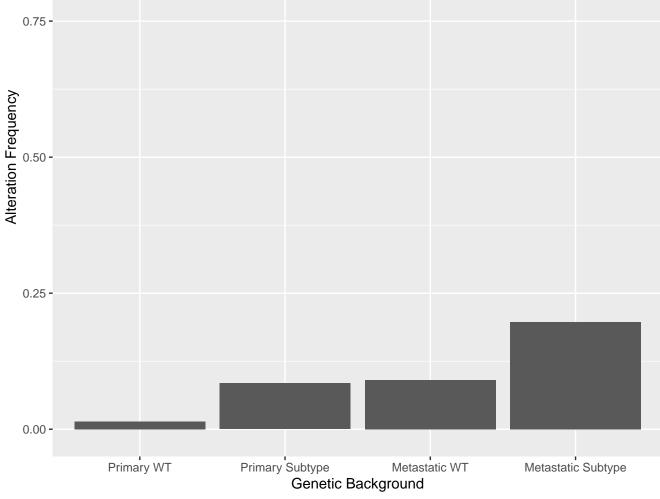
ARHGAP1 LOF Alterations



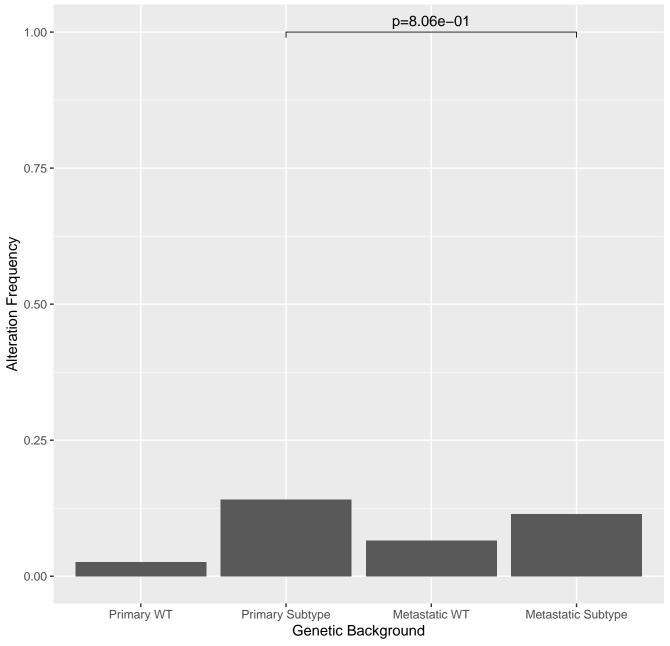
HARBI1 LOF Alterations



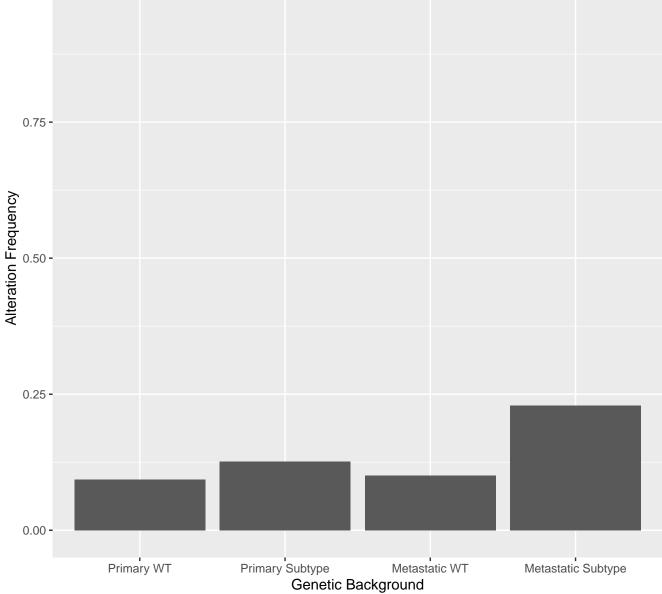
IL17B LOF Alterations p=8.94e-02 1.00 -



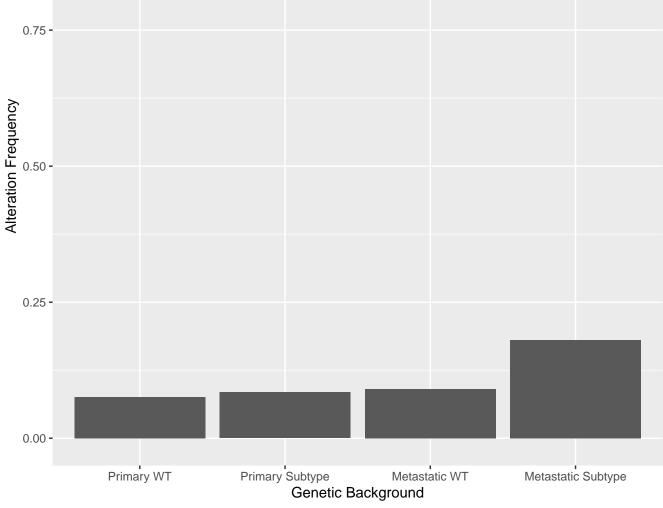
KBTBD4 LOF Alterations



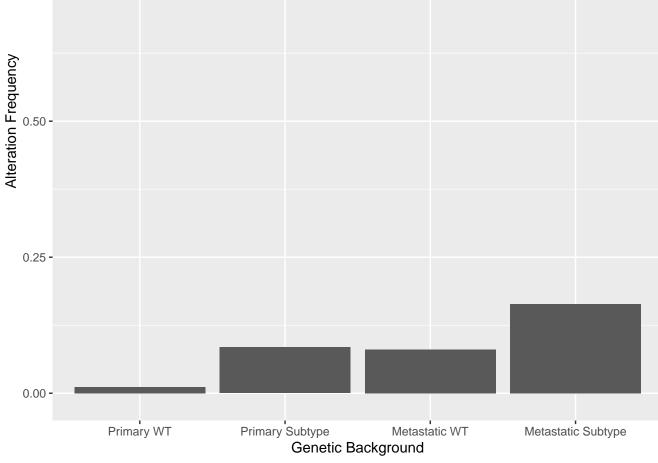
MARCH8 LOF Alterations p=1.82e-01



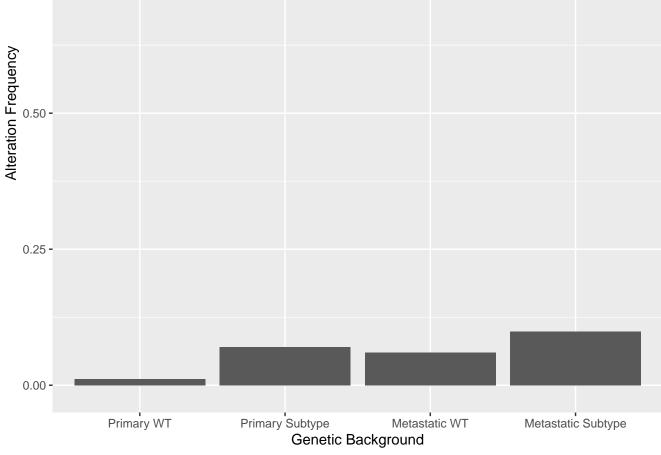
RHOBTB1 LOF Alterations p=1.39e-01 1.00 -



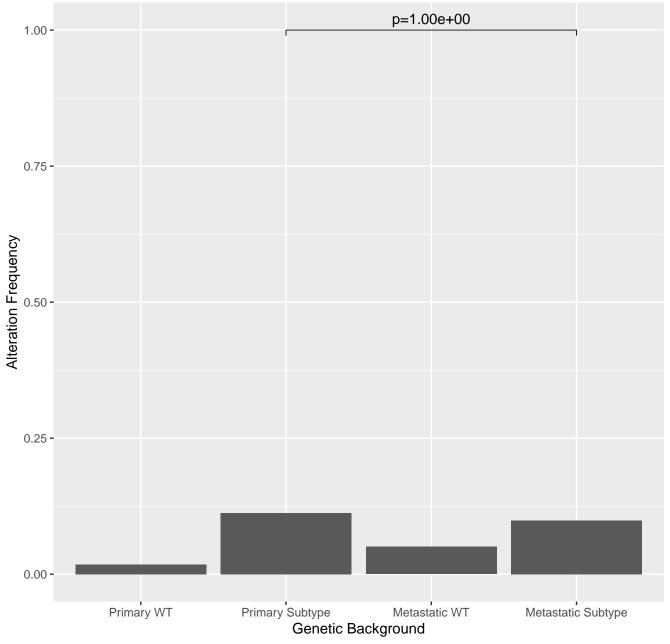
CUL9 LOF Alterations p=2.09e-01 1.00 -0.75 -



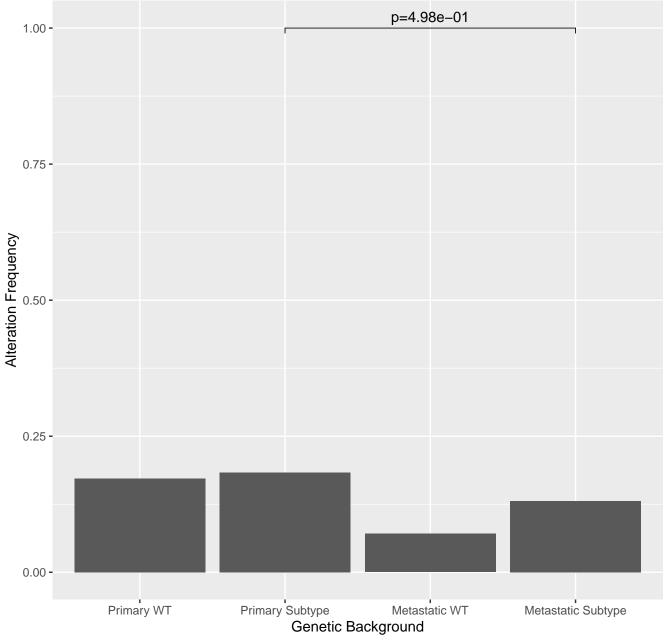
YOD1 LOF Alterations p=5.75e-01 1.00 -0.75 -



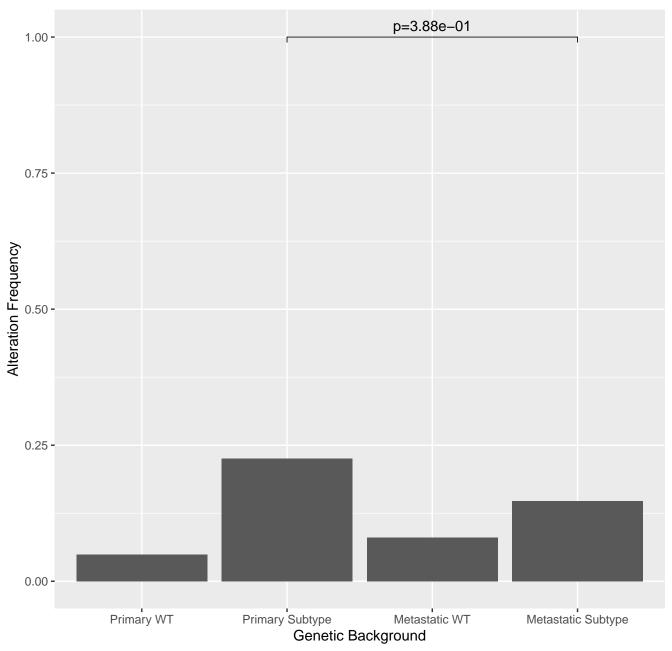
CAPRIN1 LOF Alterations



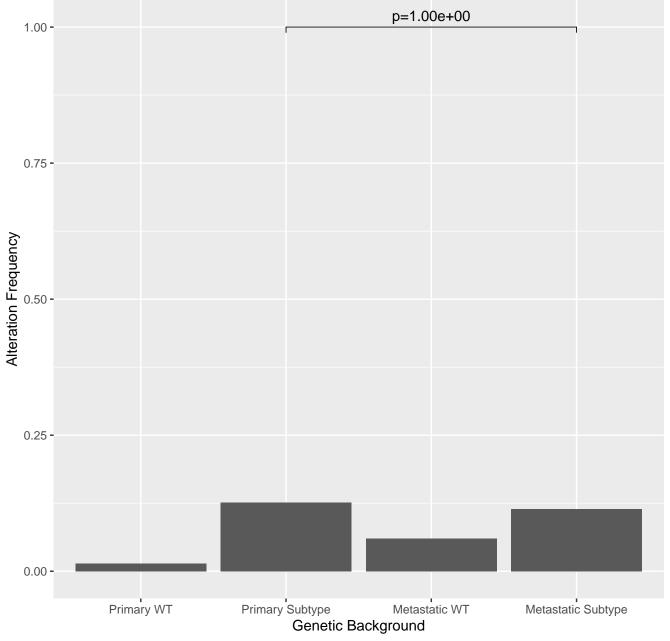
FNTA LOF Alterations



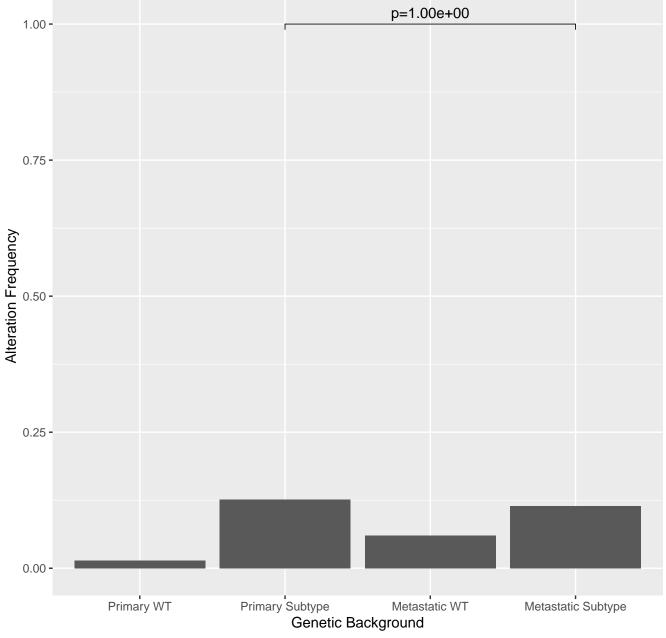
TARBP1 LOF Alterations



CCDC73 LOF Alterations



EIF3M LOF Alterations



DCDC1 LOF Alterations p=8.10e-01 1.00 -0.75 -0.50 -0.25 -0.00 -

Metastatic WT

Metastatic Subtype

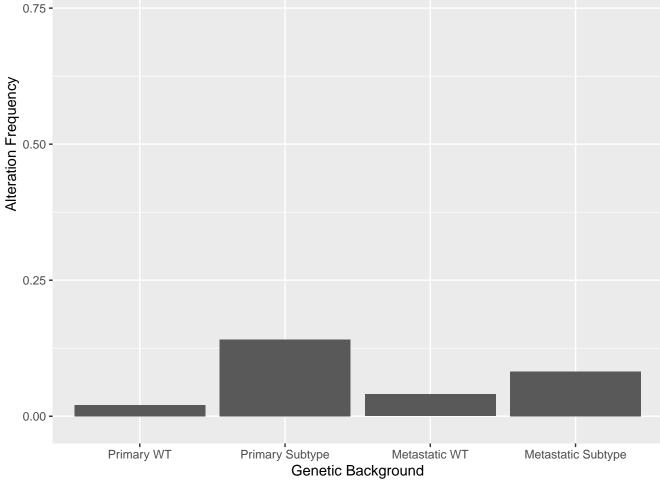
Primary Subtype

Genetic Background

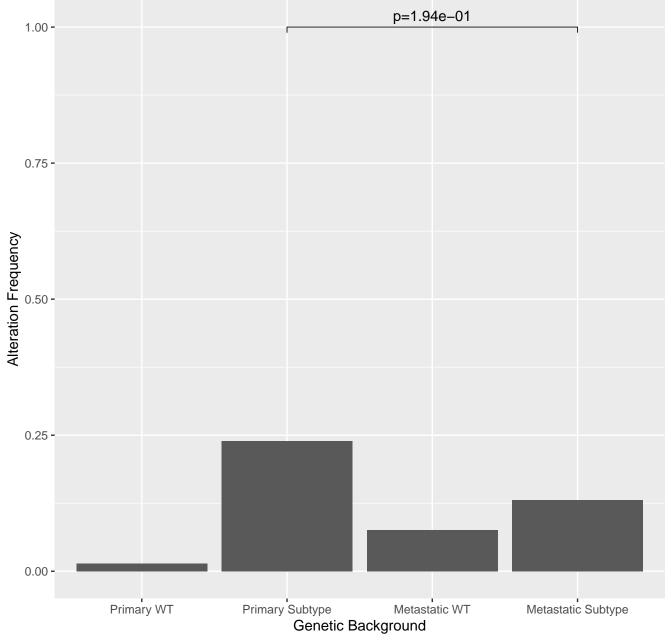
Primary WT

Alteration Frequency

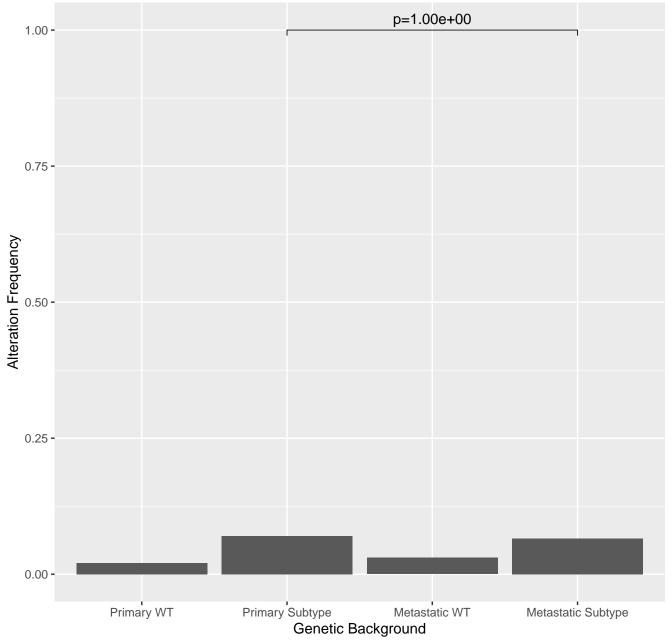
CRY2 LOF Alterations p=4.37e-01 1.00 -



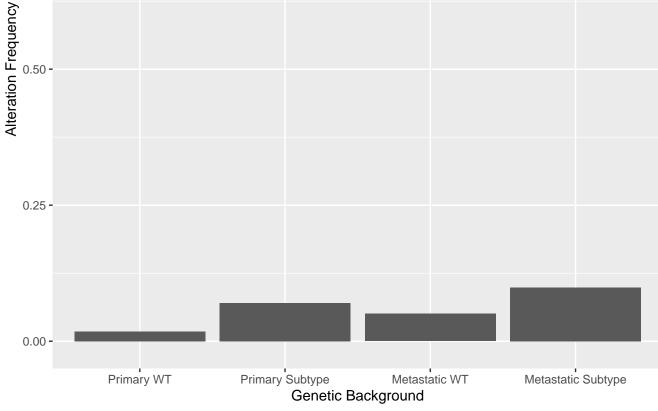
WDR26 LOF Alterations



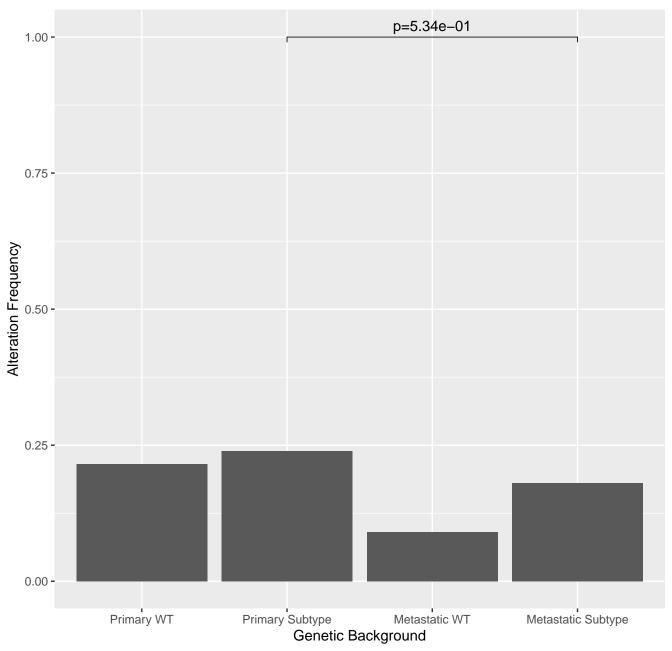
C1orf112 LOF Alterations



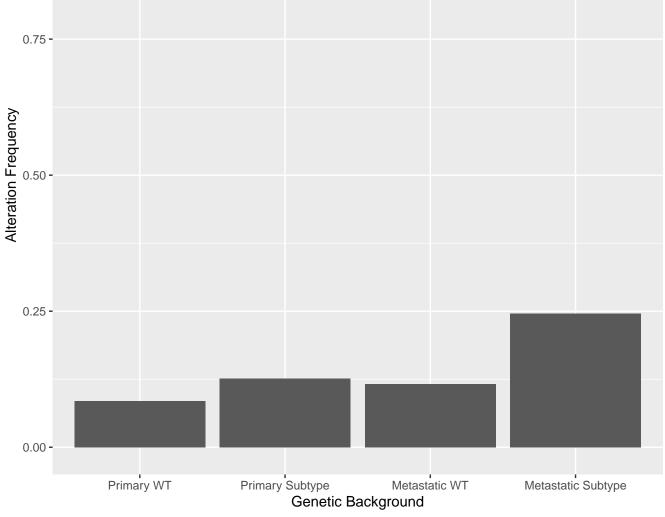
CLIC1 LOF Alterations p=5.75e-01 1.00 -0.75 -



THAP1 LOF Alterations



MYOM1 LOF Alterations p=1.24e-01 1.00 -

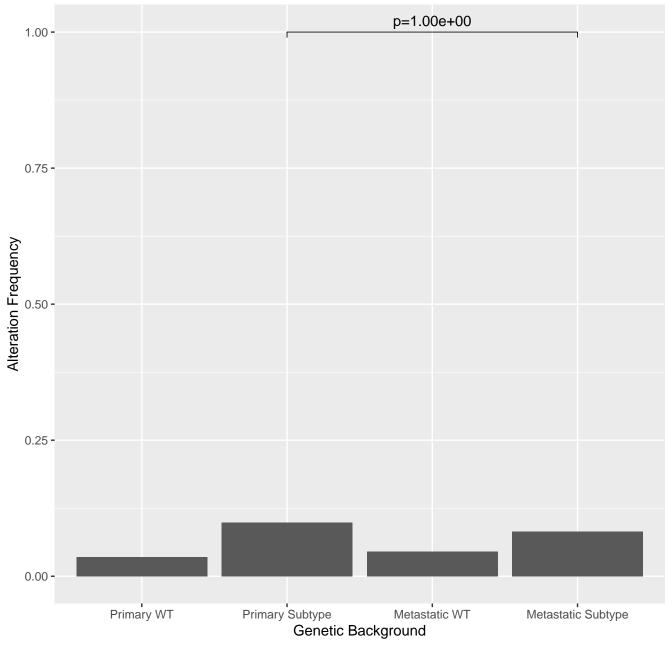


APOM LOF Alterations p=5.75e-01 1.00 -0.75 -0.50 -0.25 -0.00 -Primary Subtype Primary WT Metastatic WT Metastatic Subtype

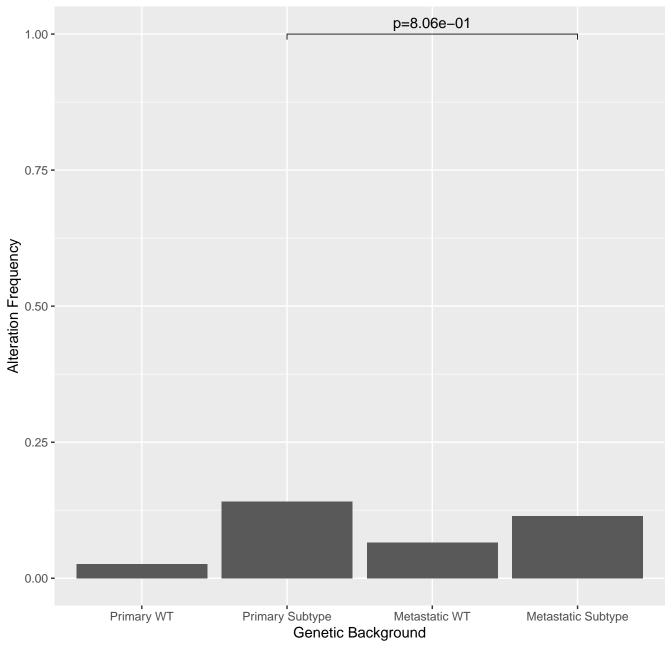
Genetic Background

Alteration Frequency

HS3ST2 LOF Alterations



SLC39A13 LOF Alterations

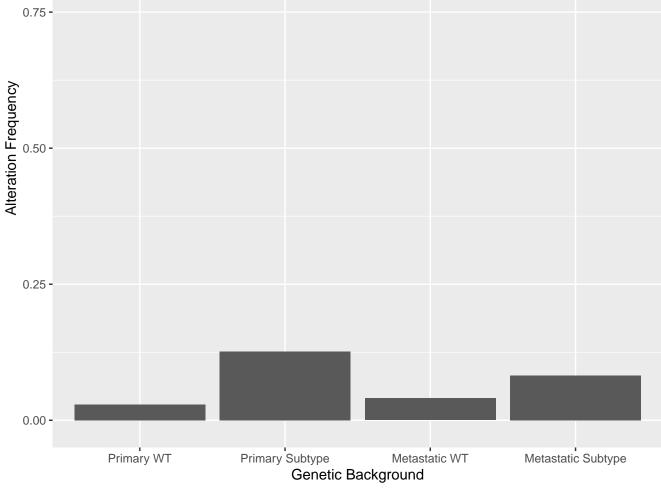


HERC4 LOF Alterations p=5.61e-02 1.00 -0.75 -0.50 -0.25 -0.00 -Primary Subtype Primary WT Metastatic WT Metastatic Subtype

Genetic Background

Alteration Frequency

AHSP LOF Alterations p=5.95e-01 1.00 -



NR1H3 LOF Alterations p=3.12e-01 1.00 -0.75 -0.50 -0.25 -0.00 -

Primary Subtype

Genetic Background

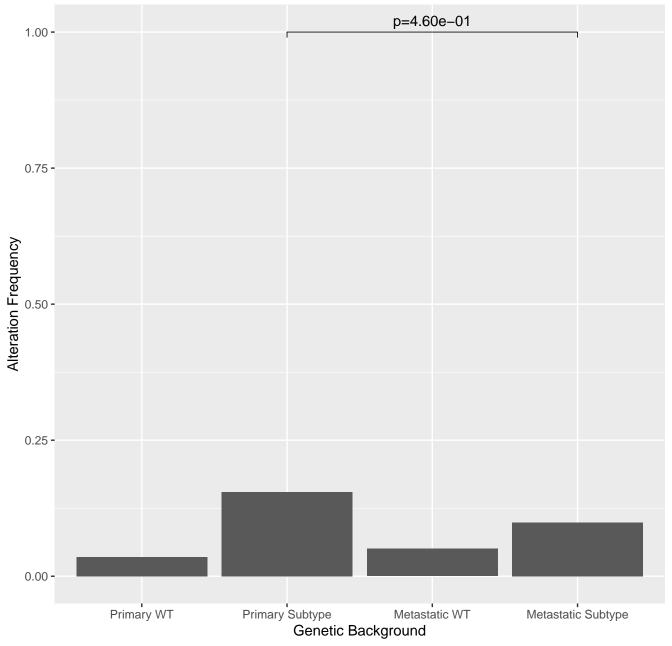
Metastatic WT

Primary WT

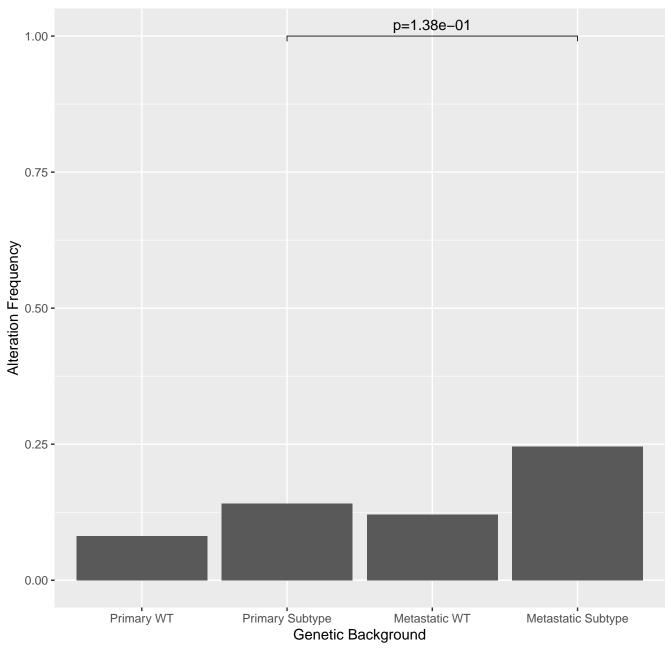
Metastatic Subtype

Alteration Frequency

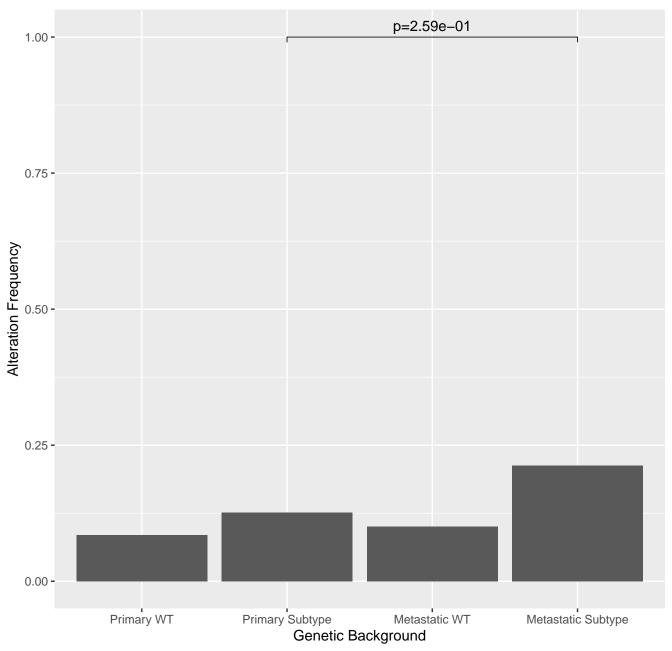
ETV3 LOF Alterations



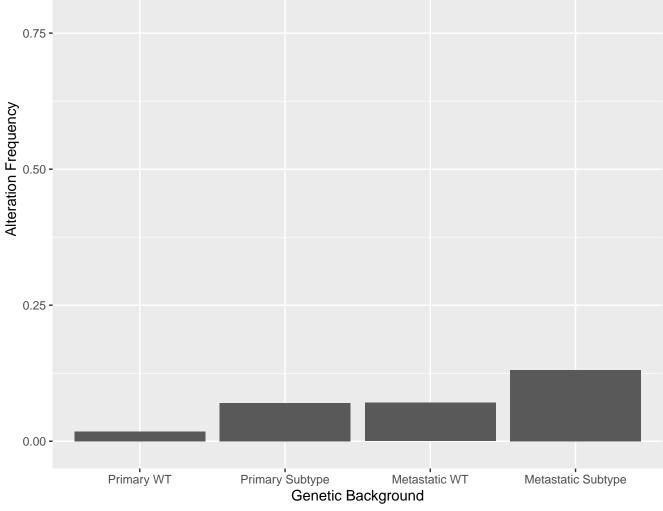
USP14 LOF Alterations



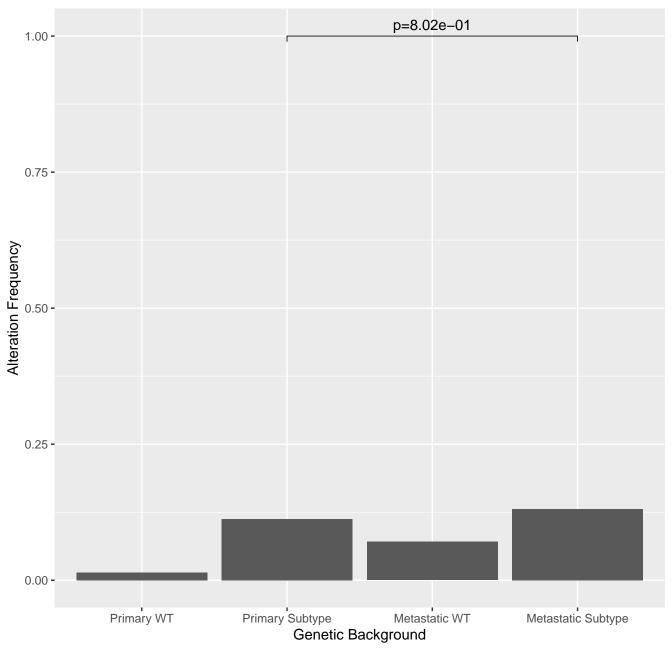
ZNF485 LOF Alterations



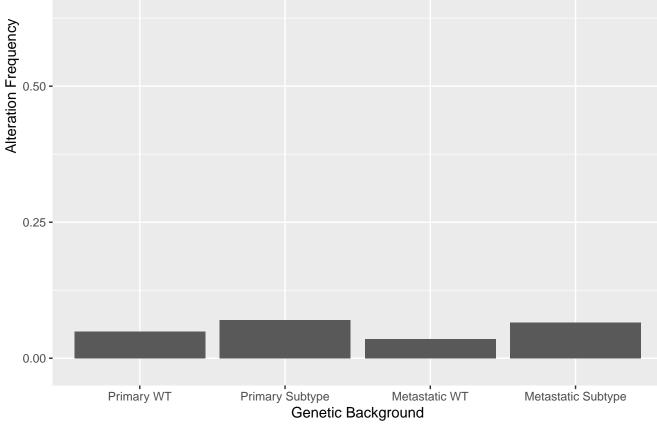
ACSS3 LOF Alterations p=2.84e-01 1.00 -



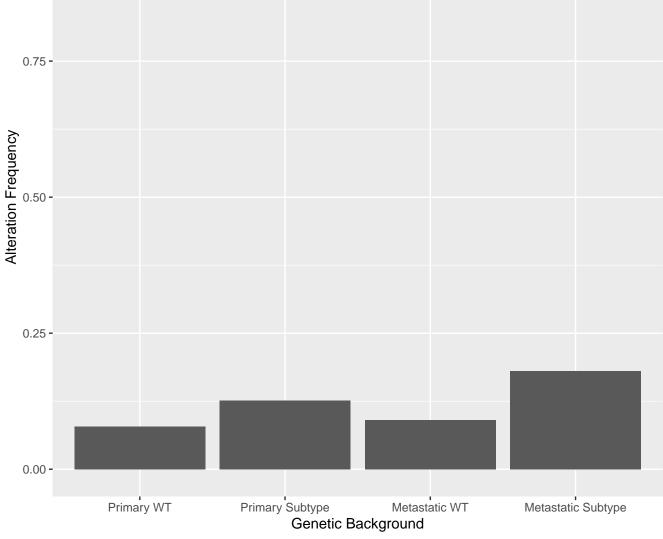
FBXO3 LOF Alterations



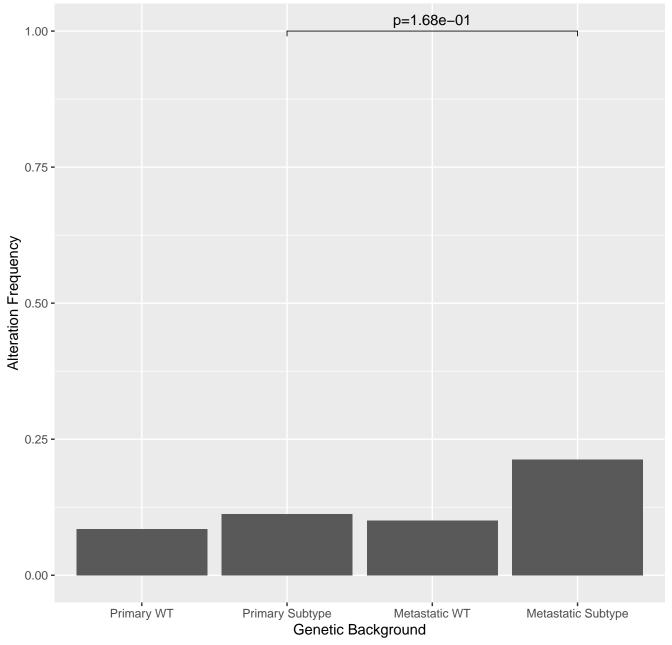
PCMTD1 LOF Alterations p=1.00e+00 1.00 -0.75 -



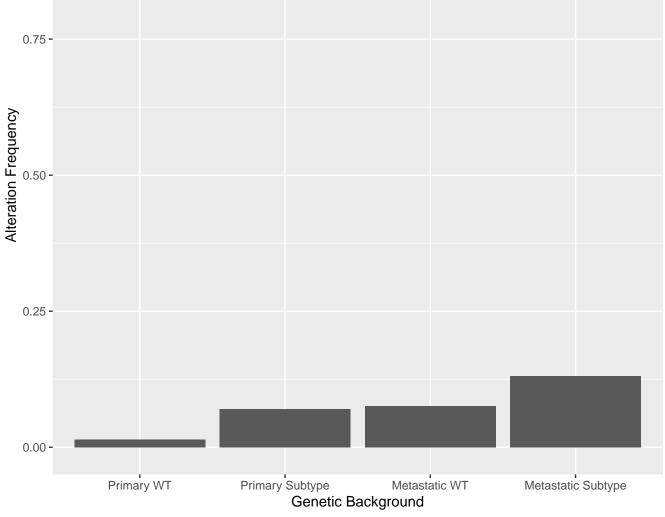
VAPA LOF Alterations p=4.85e-01 1.00 -



SPIRE1 LOF Alterations



STK19 LOF Alterations p=2.84e-01 1.00 -

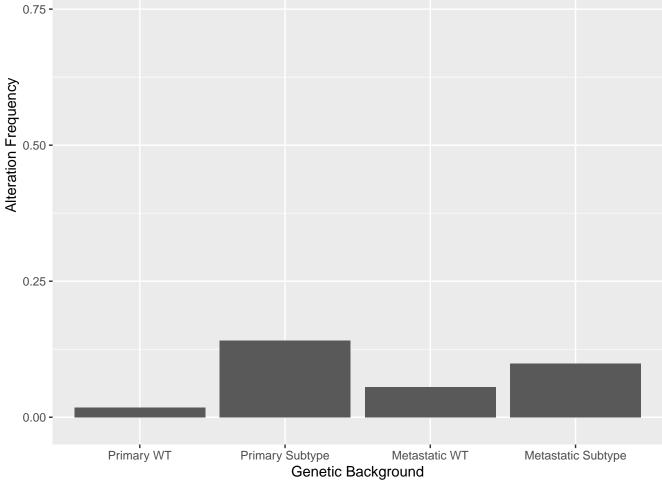


SKIV2L LOF Alterations p=5.75e-01 1.00 -0.75 -0.50 -0.25 -0.00 -Primary Subtype Primary WT Metastatic WT Metastatic Subtype

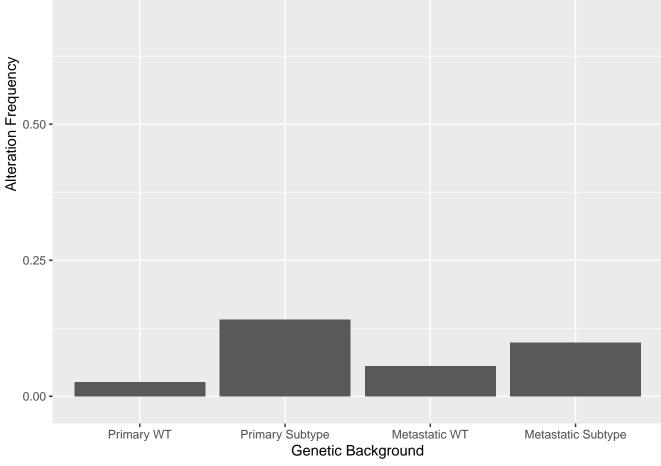
Genetic Background

Alteration Frequency

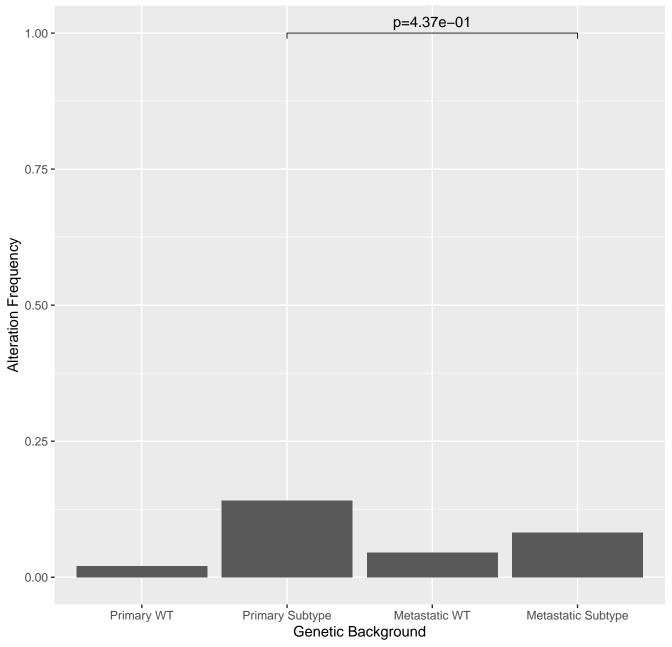
HSD17B12 LOF Alterations p=6.14e-01 1.00 -



NDUFS3 LOF Alterations p=6.14e-01 1.00 -0.75 -



SLC35C1 LOF Alterations

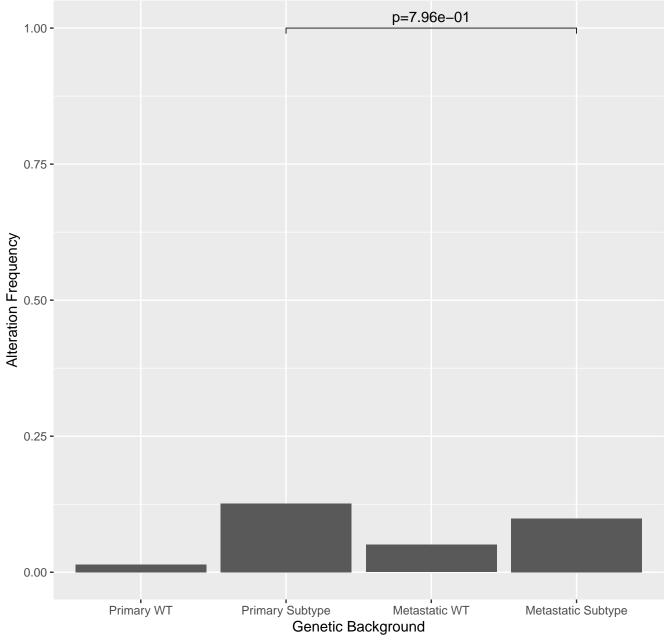


RGS21 LOF Alterations p=1.65e-01 1.00 -0.75 -0.50 -0.25 -0.00 -Primary Subtype Primary WT Metastatic WT Metastatic Subtype

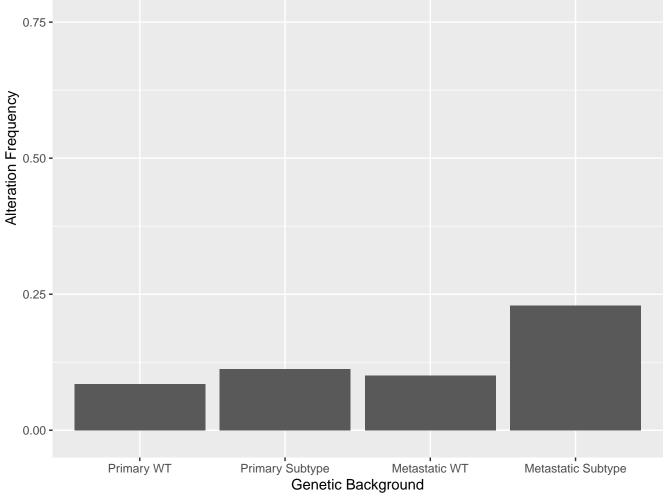
Genetic Background

Alteration Frequency

CSTF3 LOF Alterations



AFG3L2 LOF Alterations p=1.13e-01 1.00 -



IP6K3 LOF Alterations p=4.12e-01 1.00 -0.75 -0.50 -0.25 -0.00 -

Primary Subtype

Genetic Background

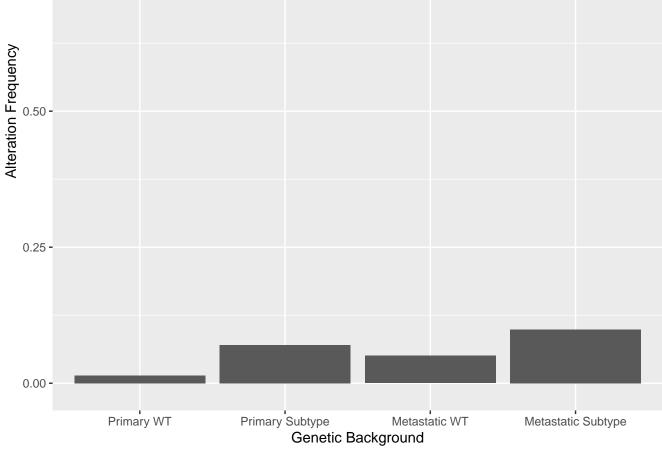
Metastatic WT

Metastatic Subtype

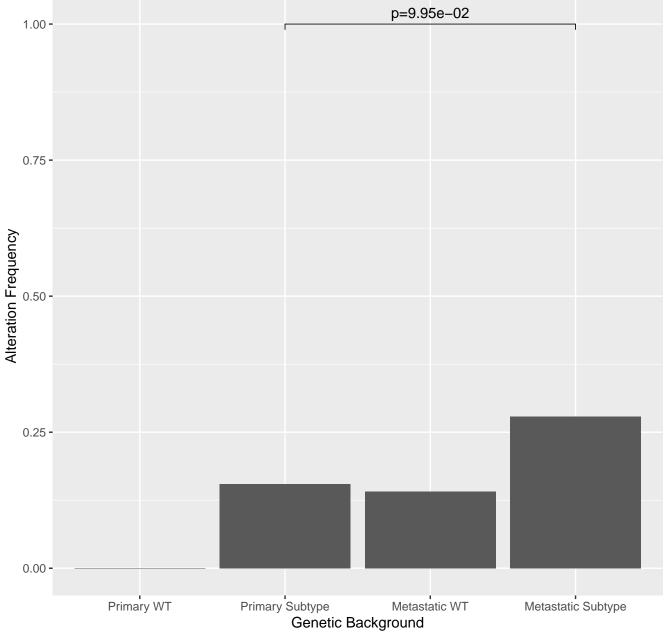
Primary WT

Alteration Frequency

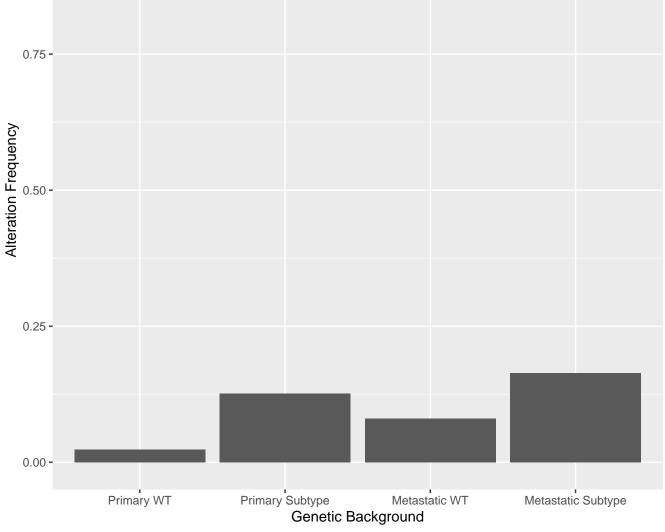
C6orf47 LOF Alterations p=5.75e-01 1.00 -0.75 -



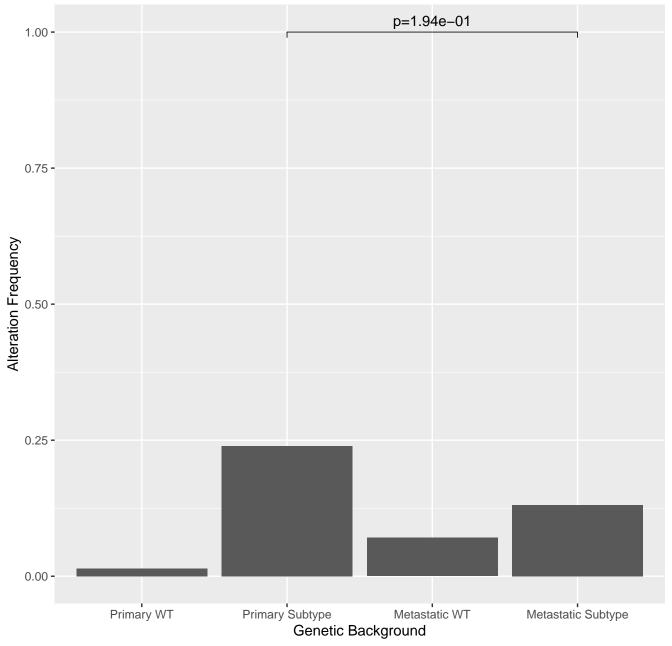
PTP4A1 LOF Alterations



INTS7 LOF Alterations p=6.36e-01 1.00 -



CNIH4 LOF Alterations

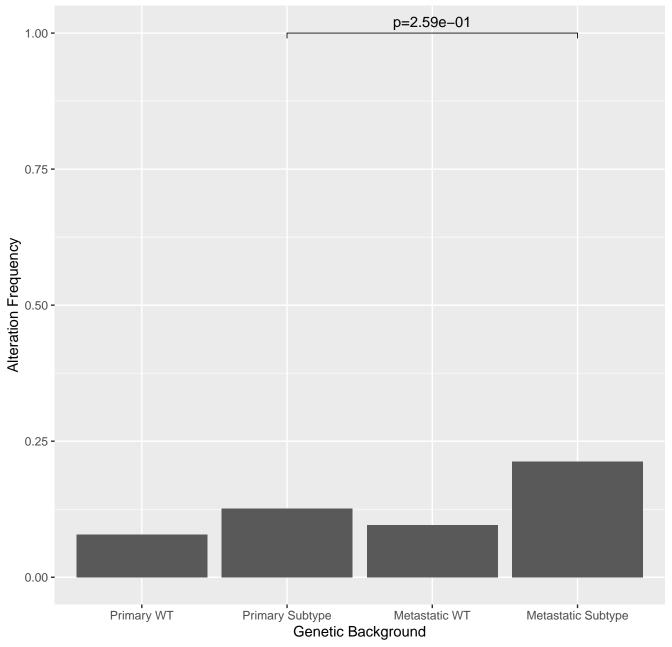


RIOK3 LOF Alterations p=5.42e-01 1.00 -0.75 -0.50 -0.25 -0.00 -Primary Subtype Primary WT Metastatic WT Metastatic Subtype

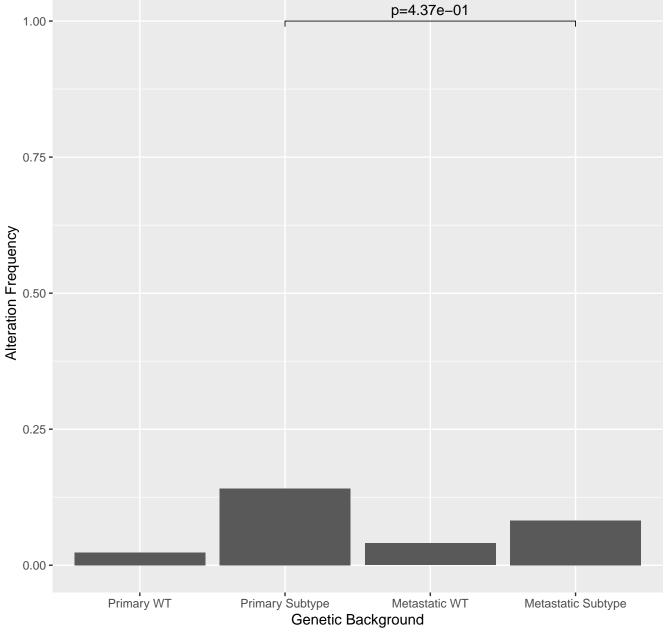
Genetic Background

Alteration Frequency

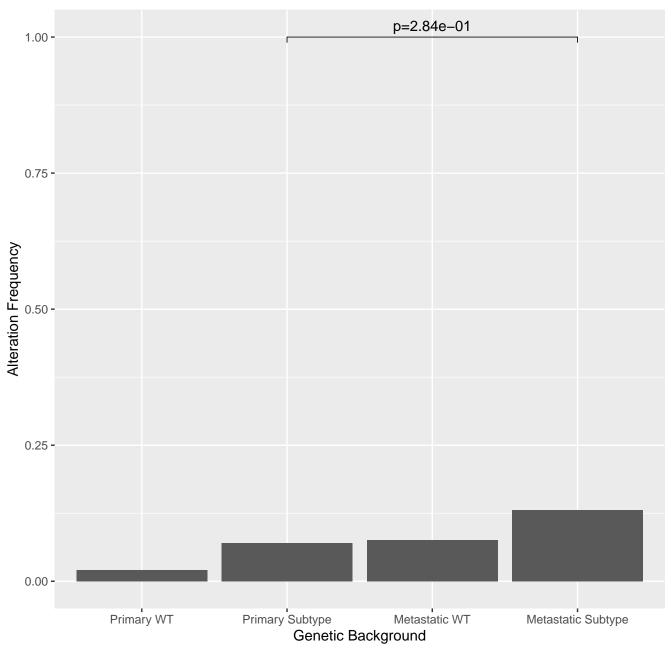
ANKRD12 LOF Alterations



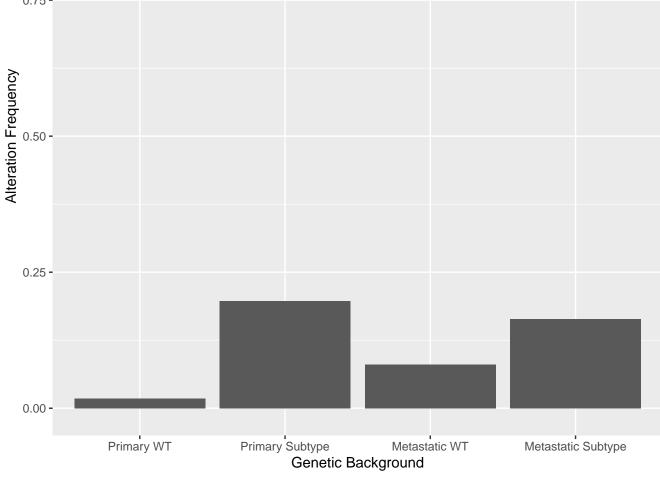
CHRM4 LOF Alterations



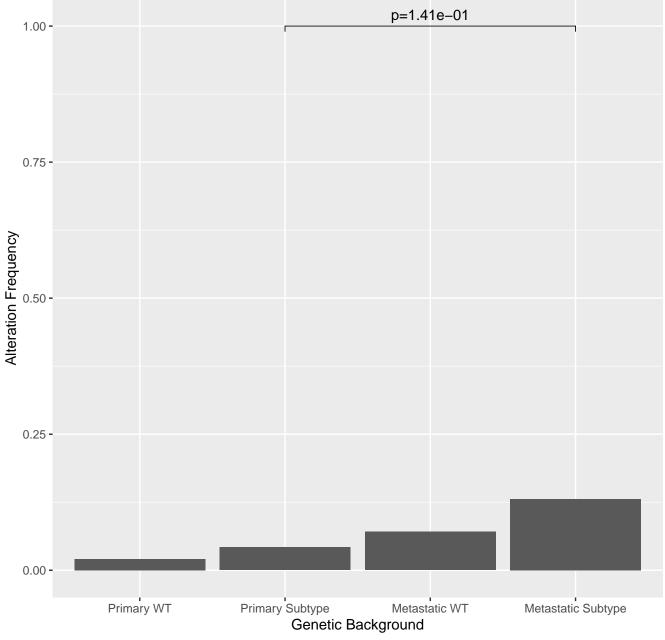
TEAD3 LOF Alterations



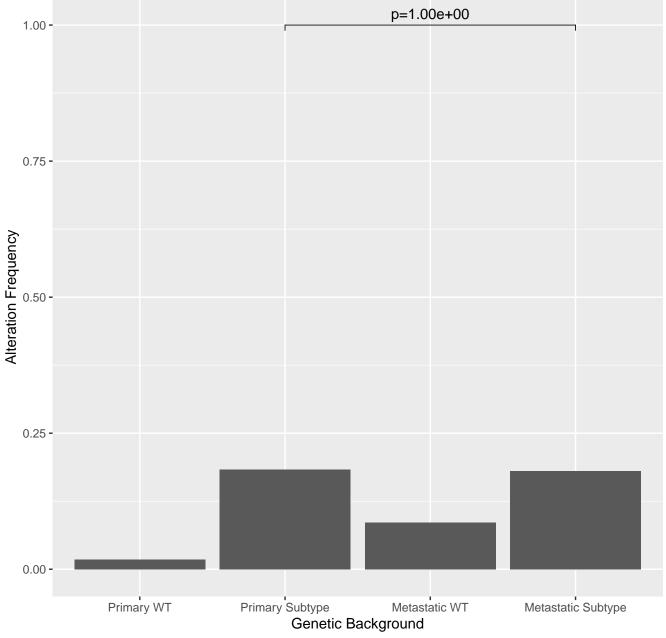
IARS2 LOF Alterations p=6.69e-01 1.00 -0.75 -



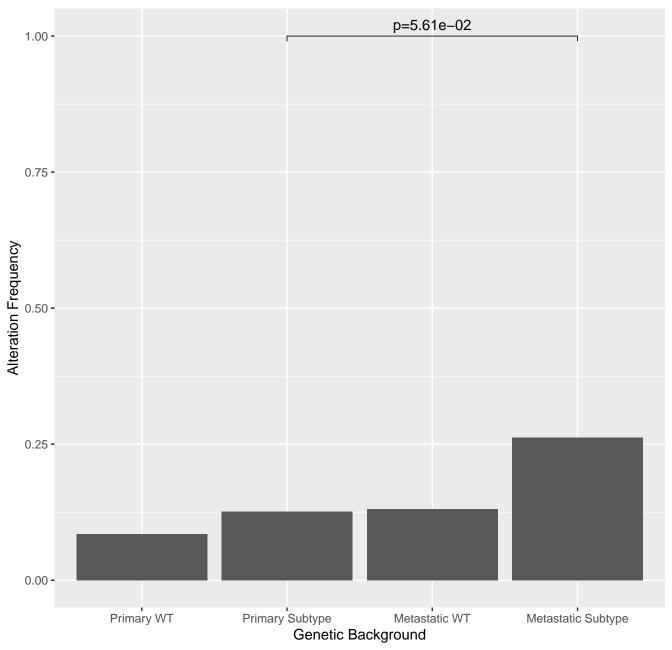
FBXW5 LOF Alterations



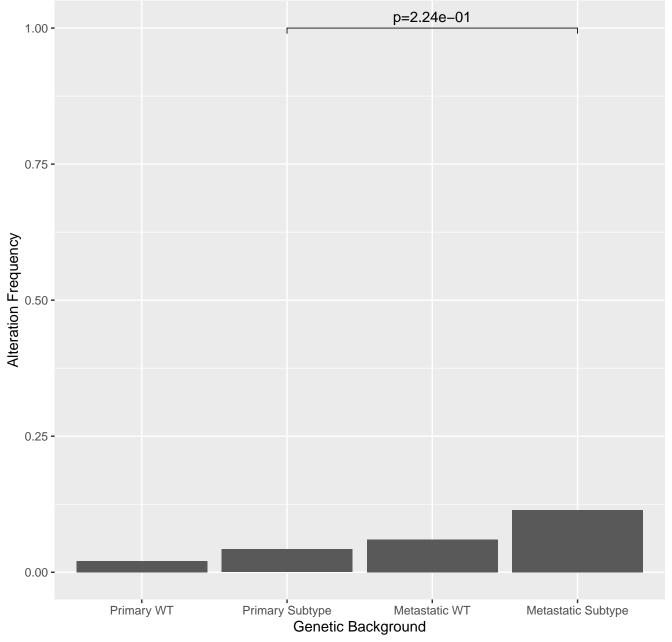
BPNT1 LOF Alterations



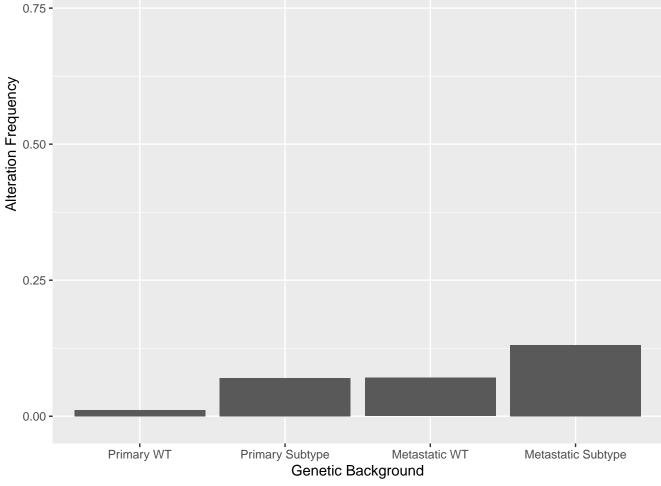
TGIF1 LOF Alterations



EDF1 LOF Alterations



AARS2 LOF Alterations p=2.84e-01 1.00 -



CLPS LOF Alterations p=4.12e-01 1.00 -0.75 -0.50 -0.25 -0.00 -

Primary Subtype

Genetic Background

Metastatic WT

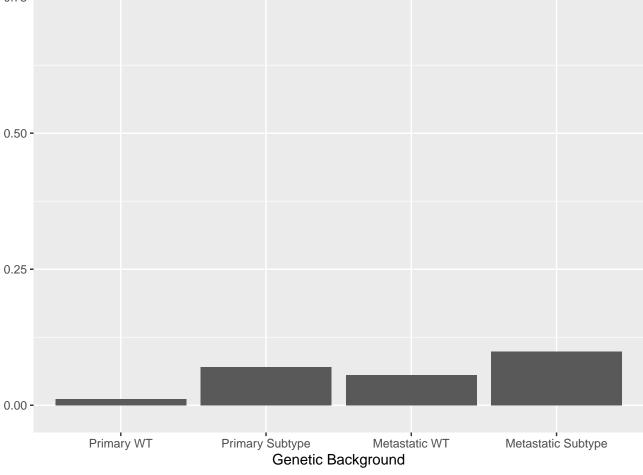
Metastatic Subtype

Primary WT

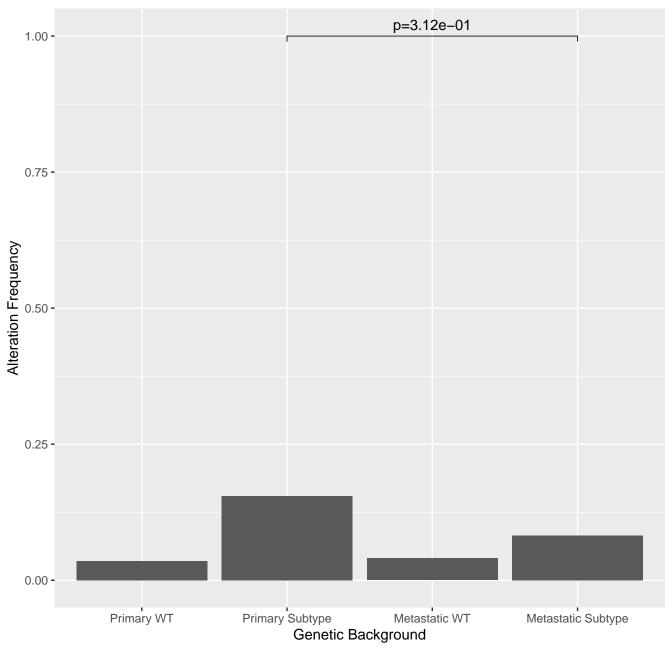
Alteration Frequency

MRPS18A LOF Alterations p=5.75e-01 1.00 -0.75 -0.50 -0.25 -

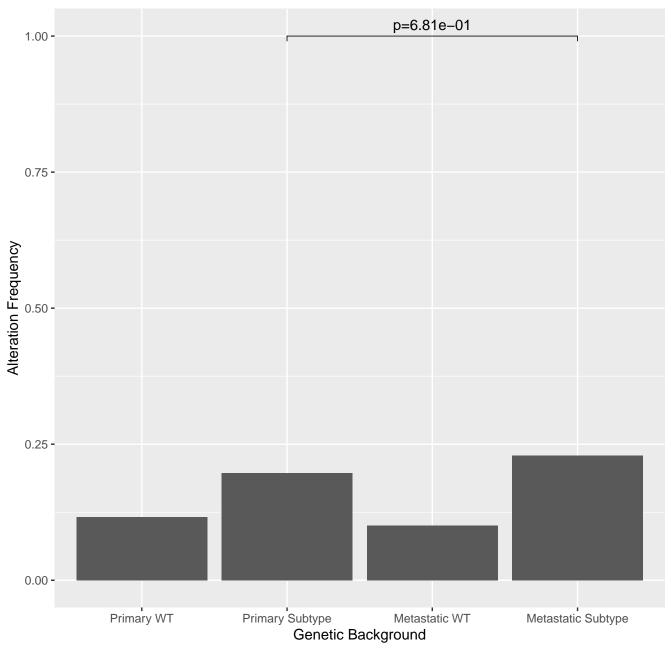
Alteration Frequency



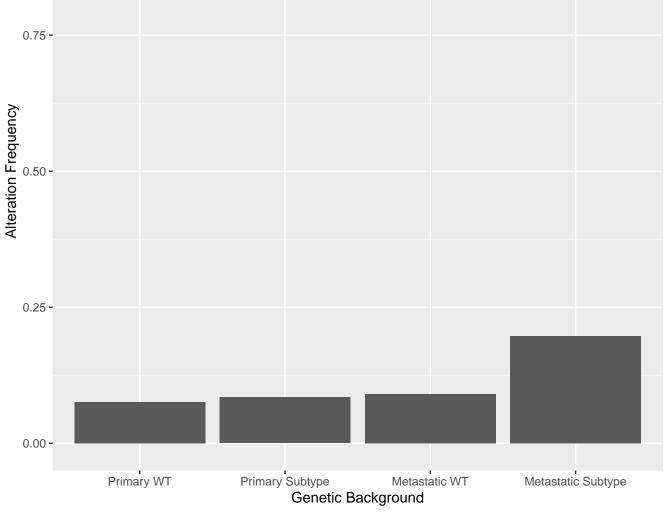
ETV3L LOF Alterations



C18orf8 LOF Alterations



RUFY2 LOF Alterations p=8.94e-02 1.00 -



RRN3 LOF Alterations p=7.72e-01 1.00 -0.75 -0.50 -0.25 -0.00 -

Primary Subtype

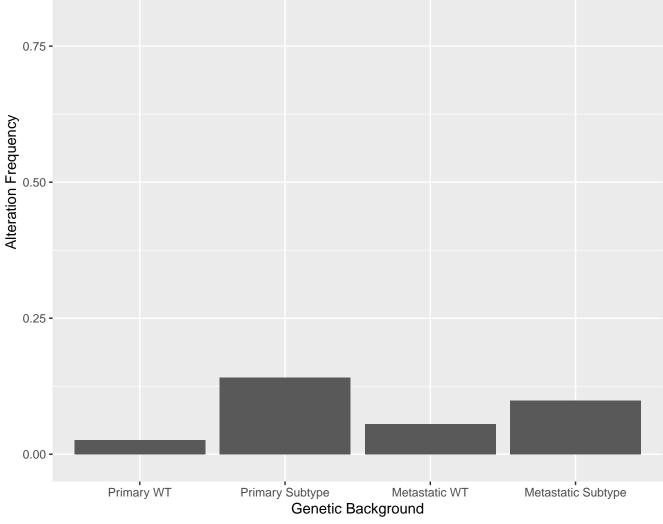
Genetic Background

Metastatic WT

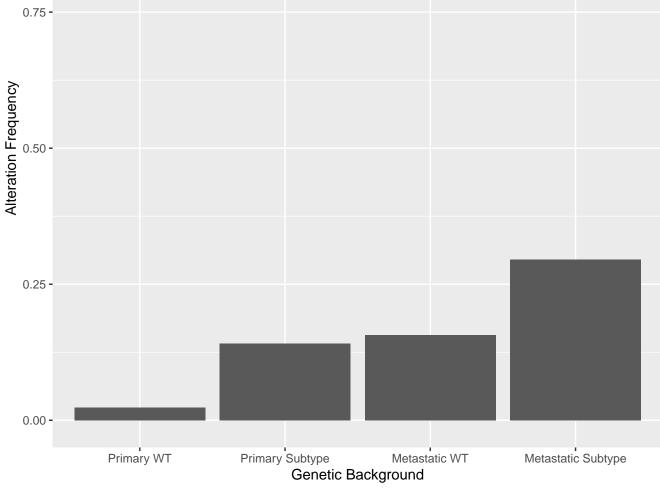
Metastatic Subtype

Primary WT

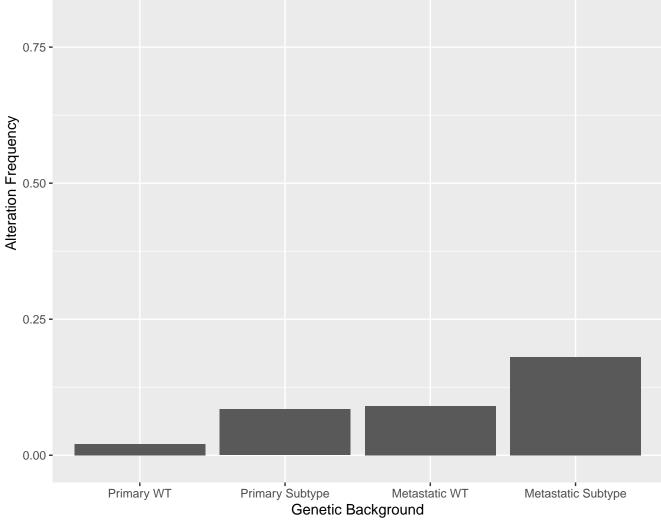
PTPMT1 LOF Alterations p=6.14e-01 1.00 -



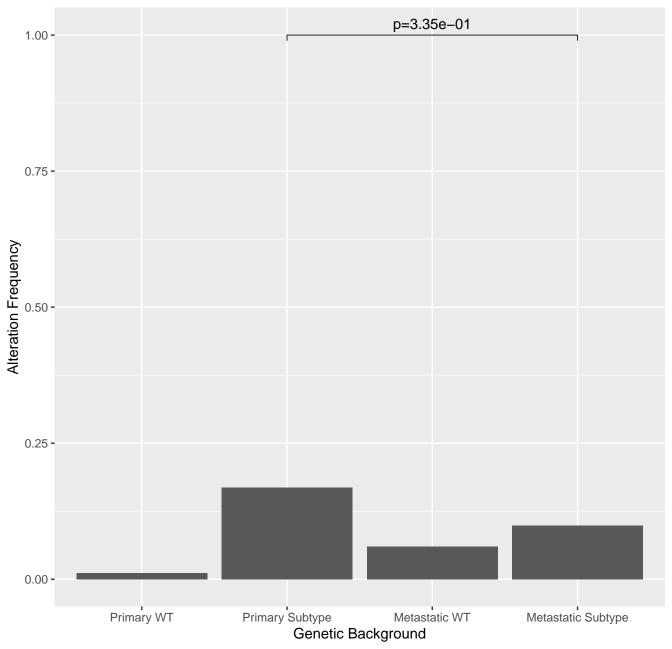
MAP7 LOF Alterations p=3.91e-02 1.00 -



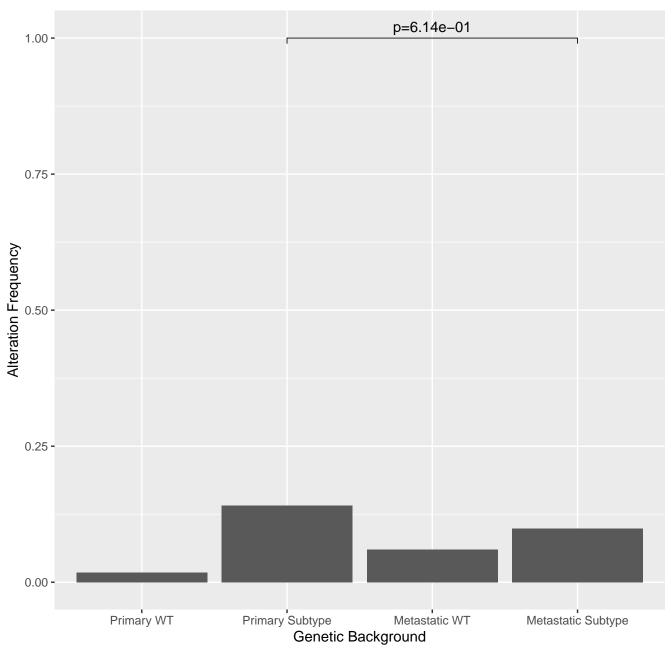
RNF14 LOF Alterations p=1.39e-01 1.00 -



TROVE2 LOF Alterations



TTC17 LOF Alterations



NDFIP1 LOF Alterations p=1.39e-01 1.00 -0.75 -0.50 -0.25 -0.00 -

Primary Subtype

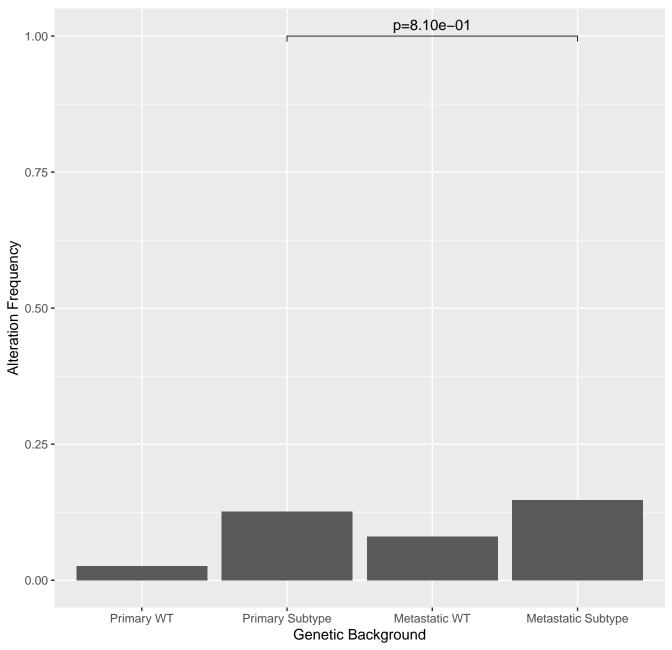
Genetic Background

Metastatic WT

Metastatic Subtype

Primary WT

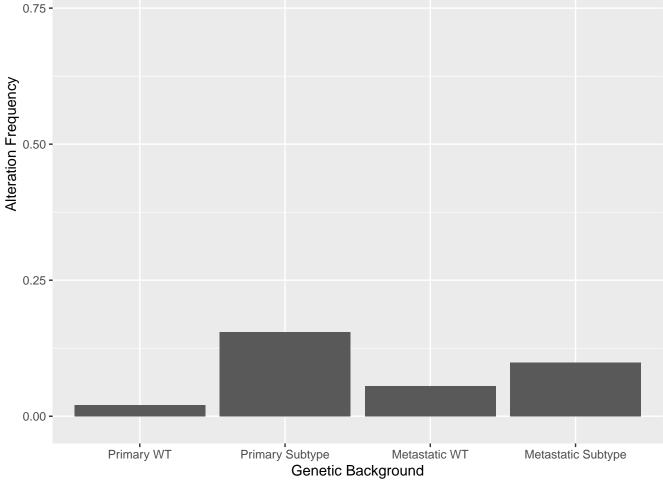
TMEM206 LOF Alterations



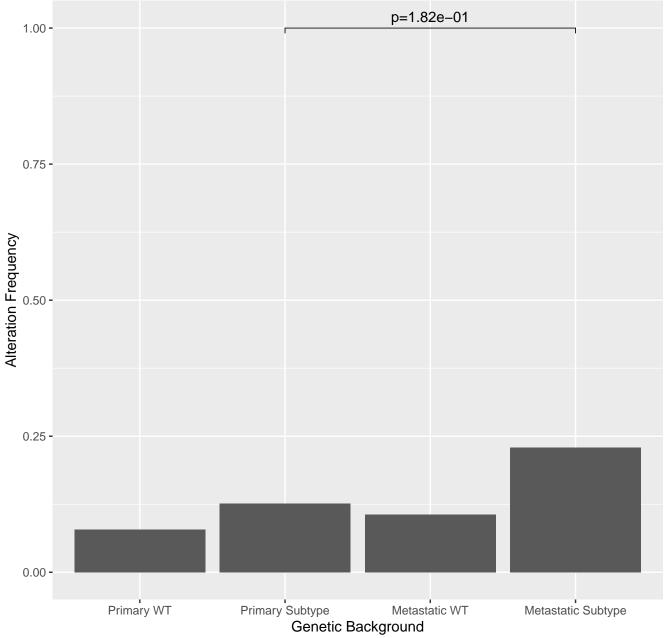
KCNK5 LOF Alterations p=4.12e-01 1.00 -0.75 -0.50 -0.25 -0.00 -Primary Subtype Primary WT Metastatic WT Metastatic Subtype

Genetic Background

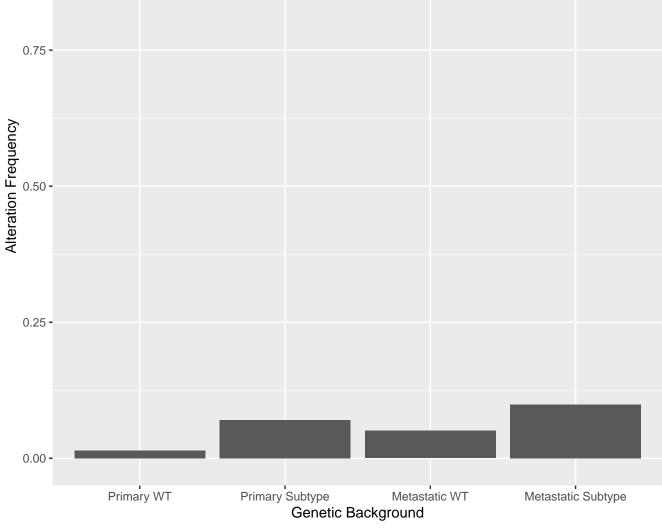
PRDM11 LOF Alterations p=4.60e-01 1.00 -



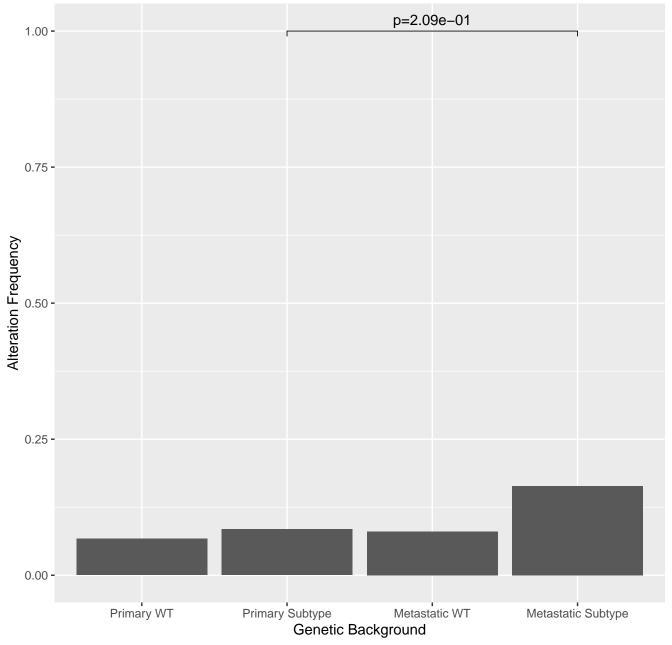
METTL4 LOF Alterations



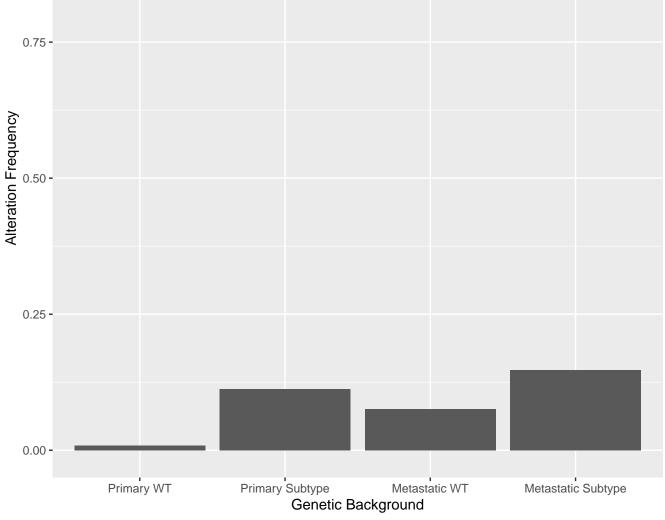
C4A LOF Alterations p=5.75e-01 1.00 -



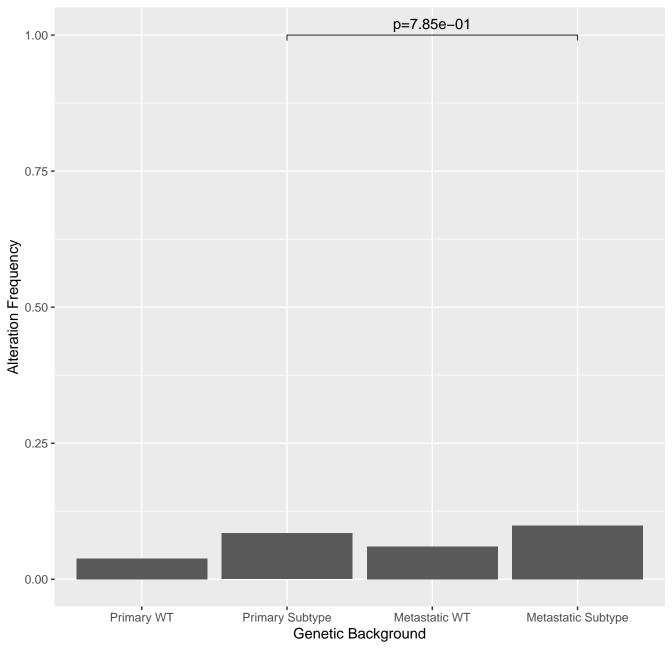
ARID5B LOF Alterations



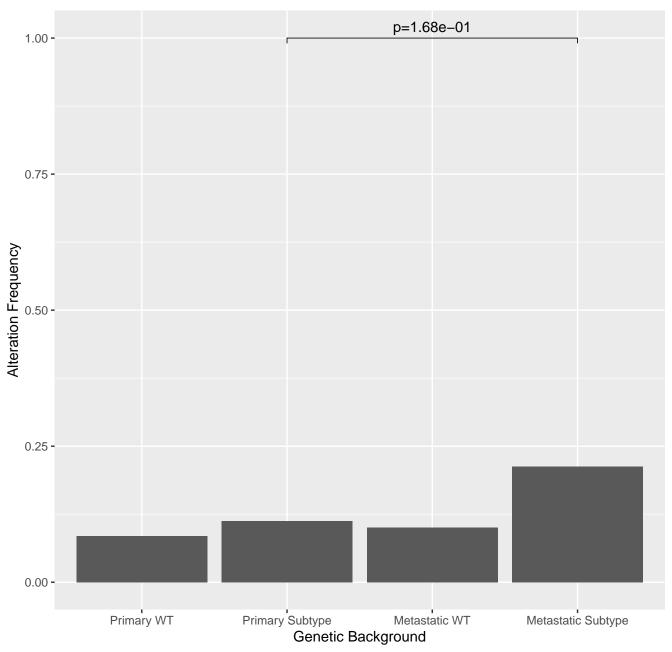
IMMP1L LOF Alterations p=6.23e-01 1.00 -



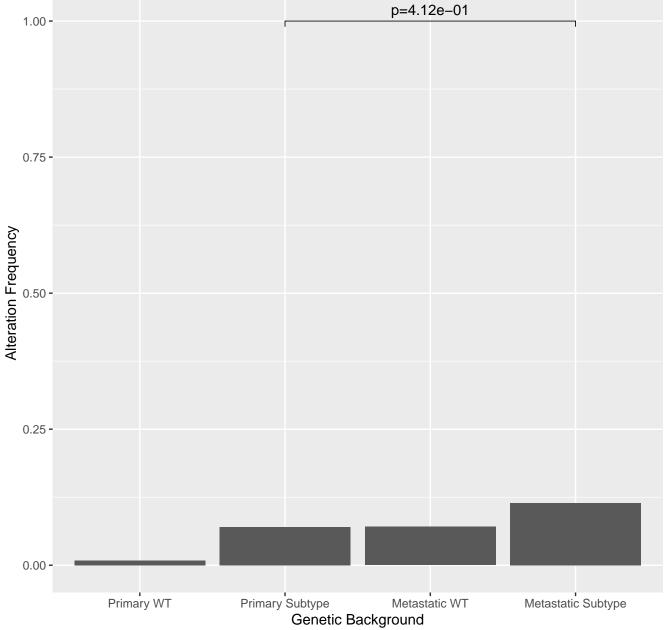
TSHB LOF Alterations



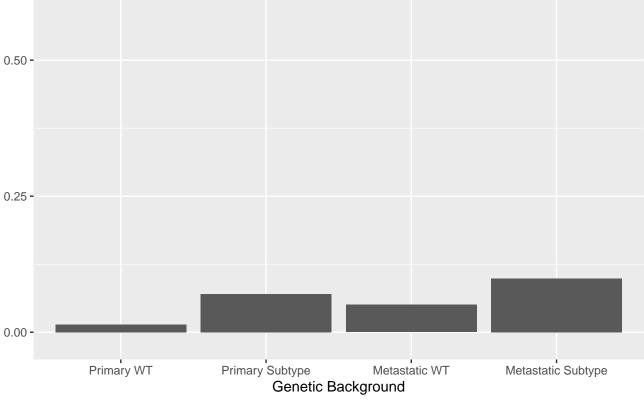
TUBB6 LOF Alterations



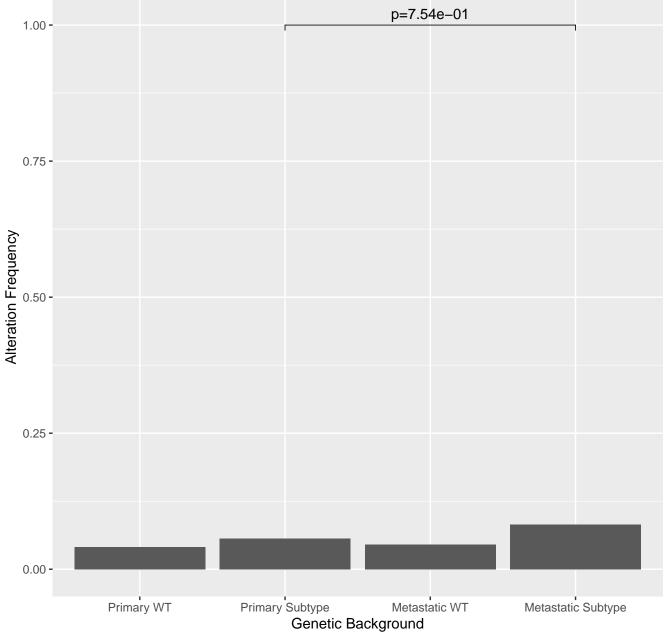
WDR46 LOF Alterations



DDAH2 LOF Alterations p=5.75e-01 1.00 -0.75 -0.50 -0.25 -



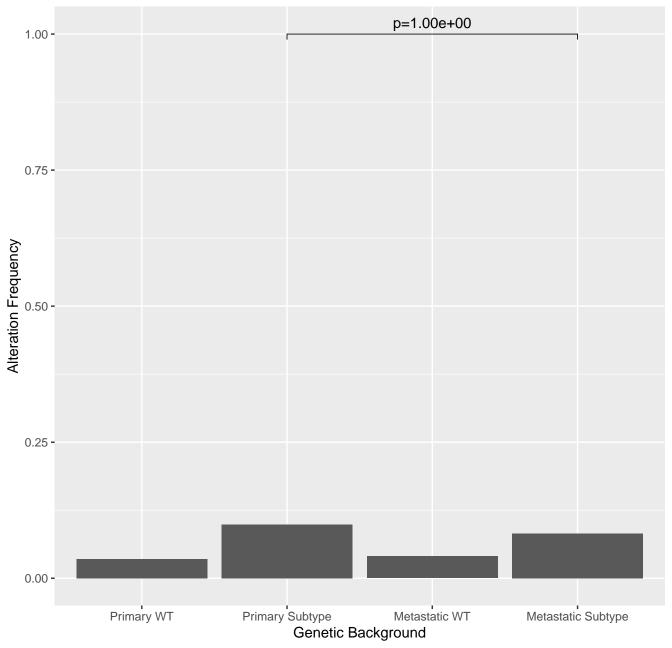
MRPL15 LOF Alterations



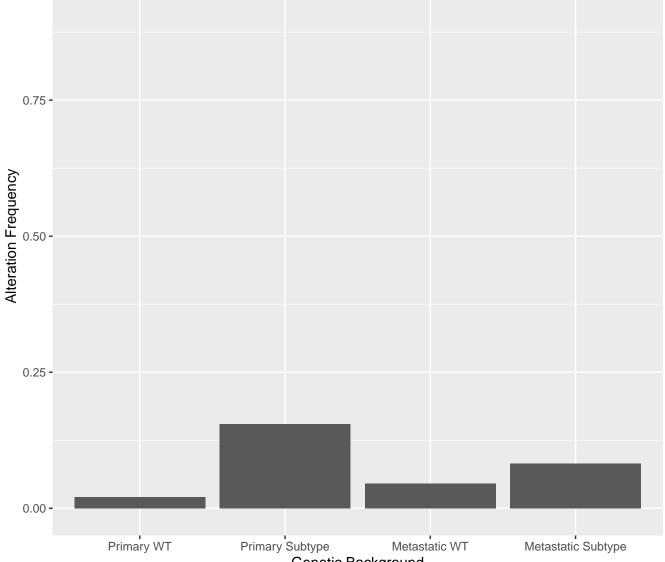
RCN1 LOF Alterations p=1.00e+00 1.00 -0.75 -

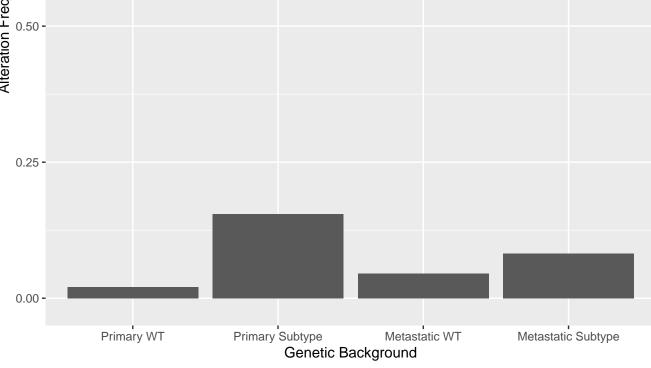
Alteration Frequency 0.50 -0.25 -0.00 -Primary Subtype Metastatic WT Metastatic Subtype Primary WT Genetic Background

C16orf82 LOF Alterations

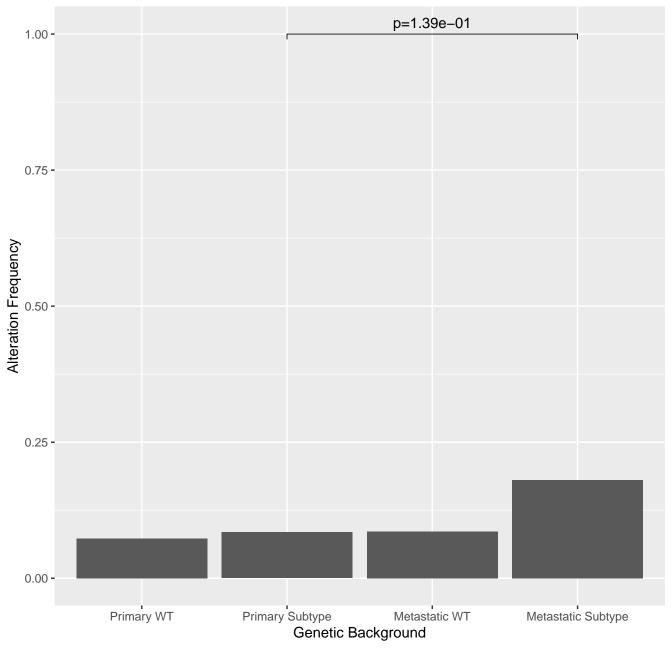


SYT13 LOF Alterations p=3.12e-01 1.00 -

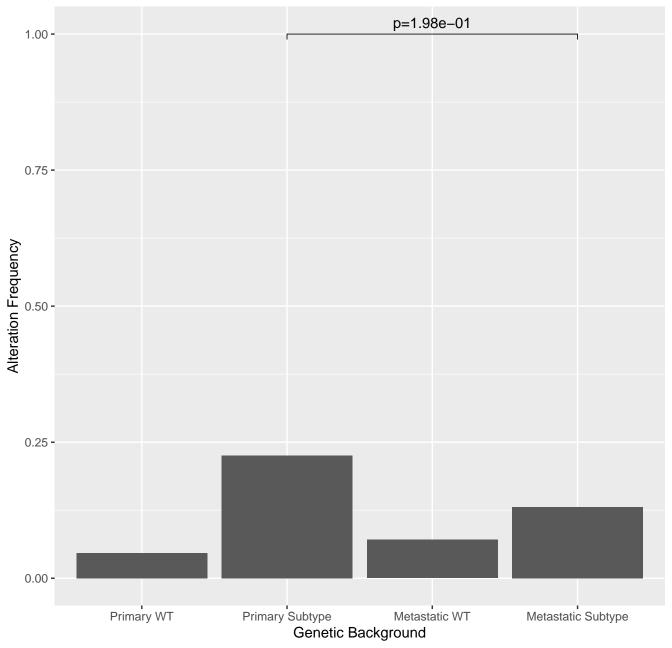




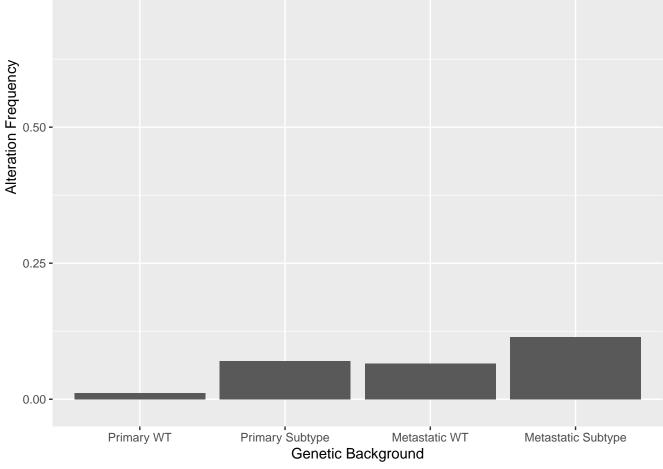
C10orf107 LOF Alterations



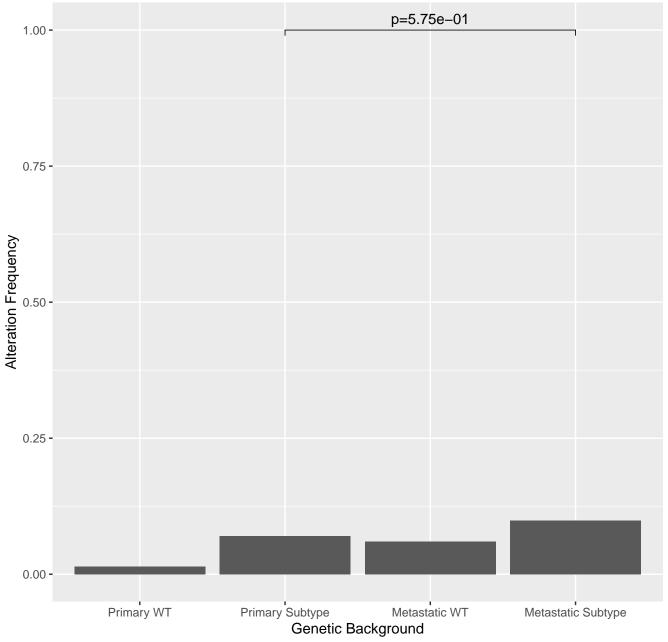
IRF2BP2 LOF Alterations



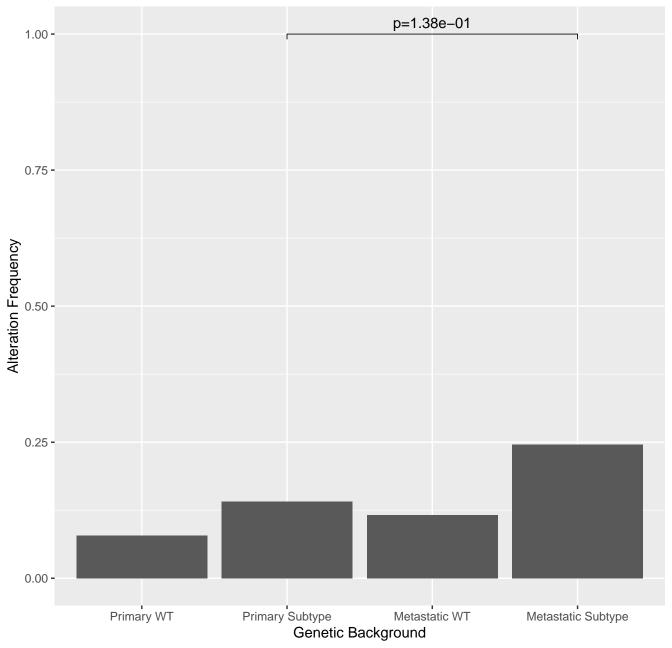
SLC35B2 LOF Alterations p=4.12e-01 1.00 -0.75 -



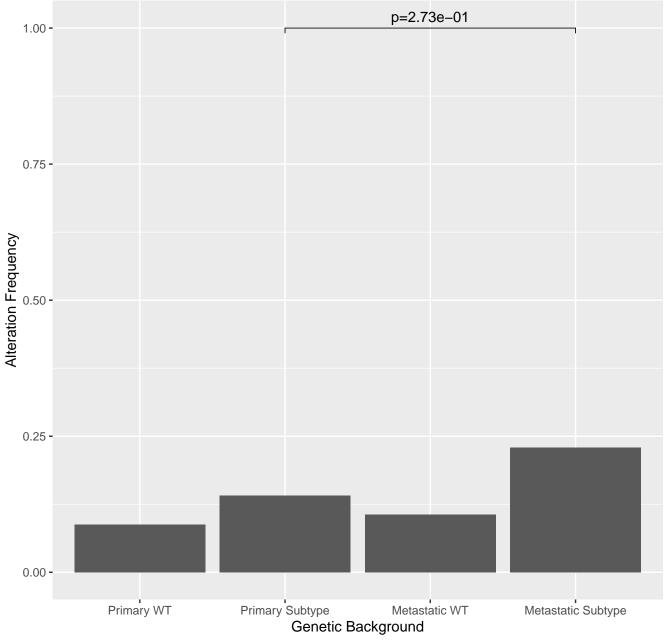
TNF LOF Alterations



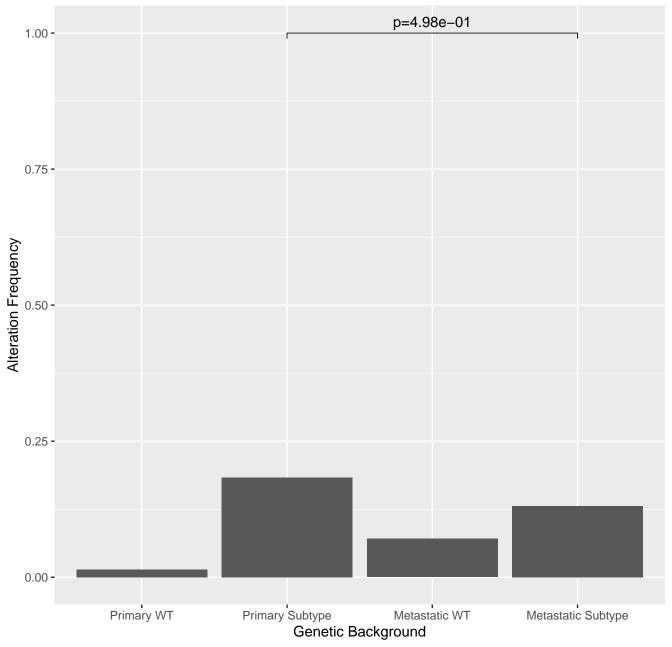
MYL12B LOF Alterations



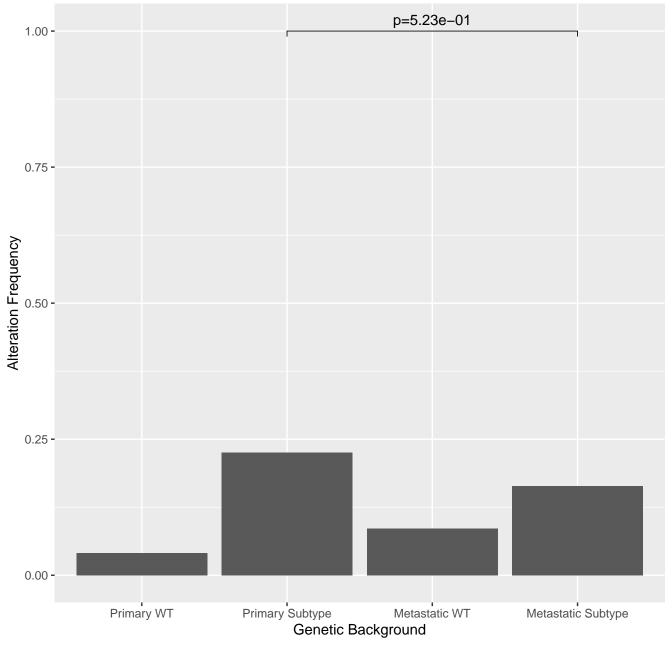
RASGEF1A LOF Alterations



CDC73 LOF Alterations



SLC35F3 LOF Alterations



PACSIN3 LOF Alterations p=3.12e-01 1.00 -0.75 -0.50 -0.25 -0.00 -

Primary Subtype

Genetic Background

Metastatic WT

Metastatic Subtype

Primary WT

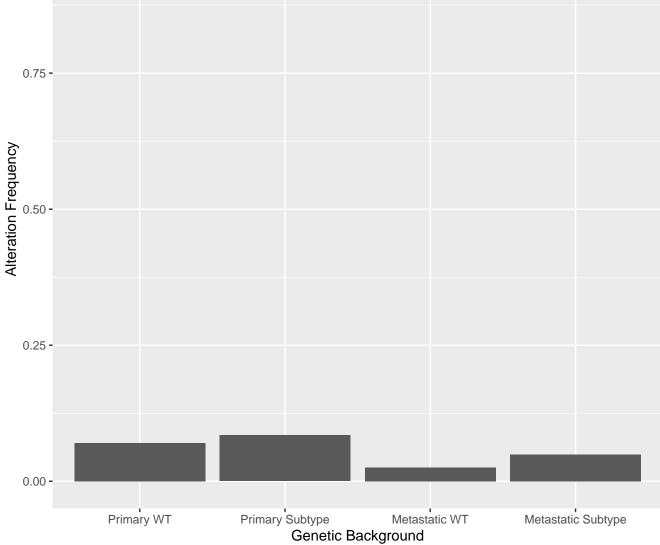
MDK LOF Alterations p=2.86e-01 1.00 -0.75 -0.50 -0.25 -0.00 -Primary Subtype Primary WT Metastatic WT Metastatic Subtype

Genetic Background

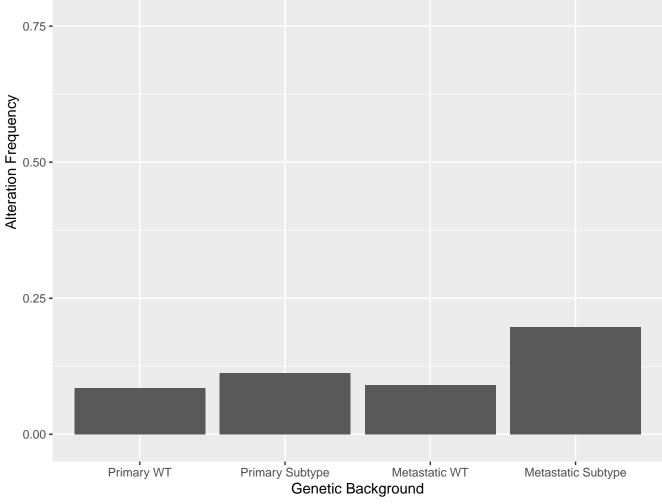
POGK LOF Alterations p=7.85e-01 1.00 -0.75 -0.50 -0.25 -0.00 -Primary Subtype Primary WT Metastatic WT Metastatic Subtype

Genetic Background

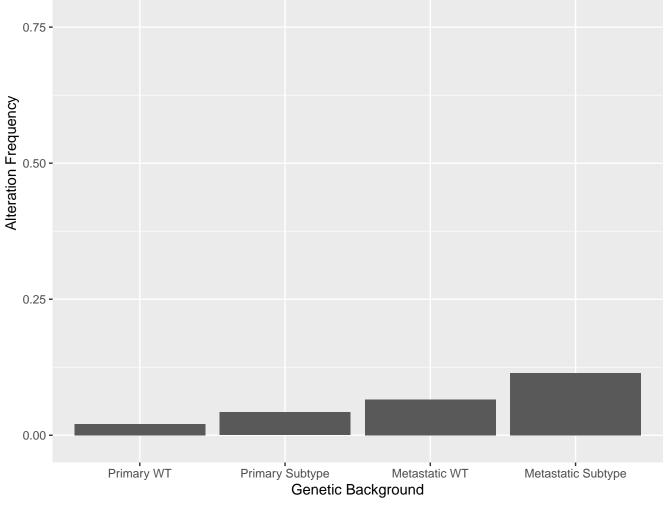
CEBPD LOF Alterations p=5.45e-01 1.00 -



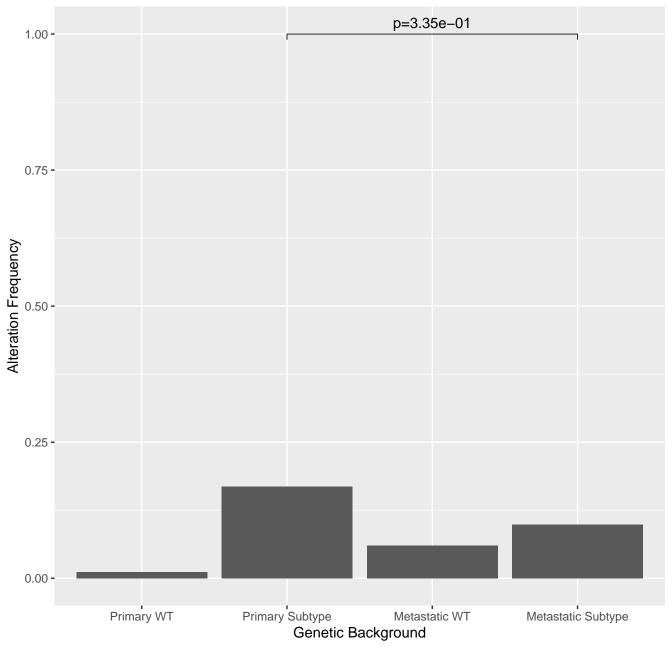
CEP76 LOF Alterations p=2.43e-01 1.00 -



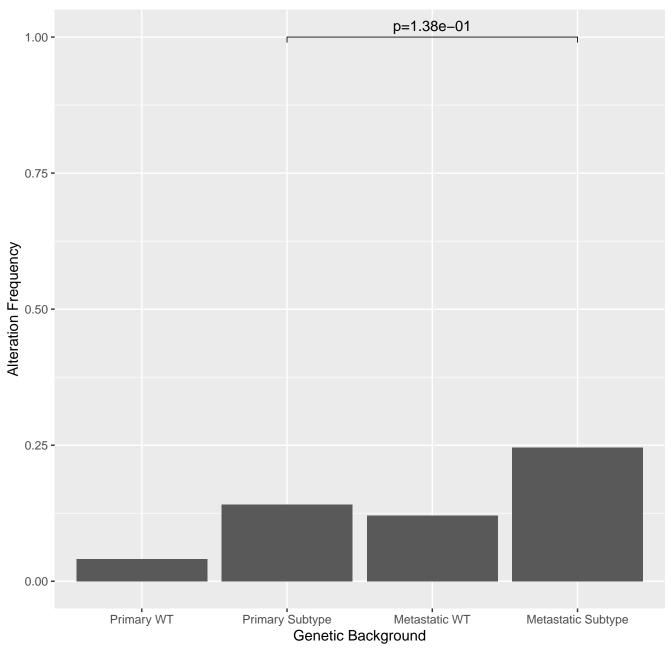
LCN6 LOF Alterations p=2.24e-01 1.00 -



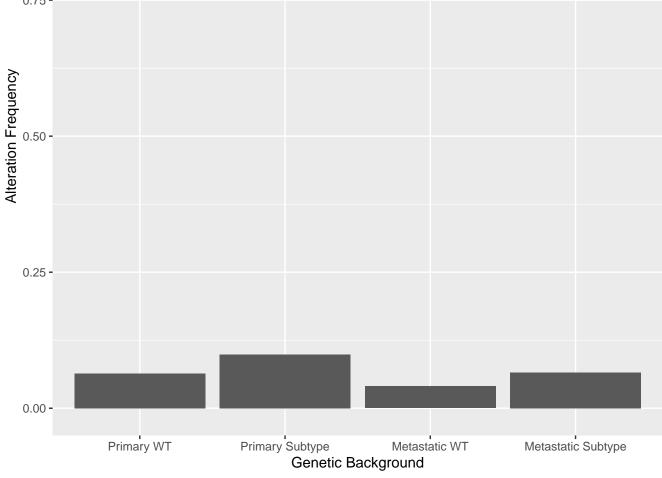
UCHL5 LOF Alterations



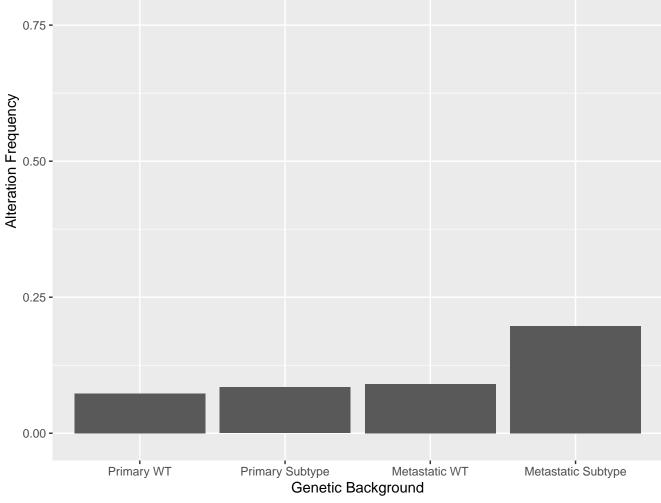
TMEM181 LOF Alterations



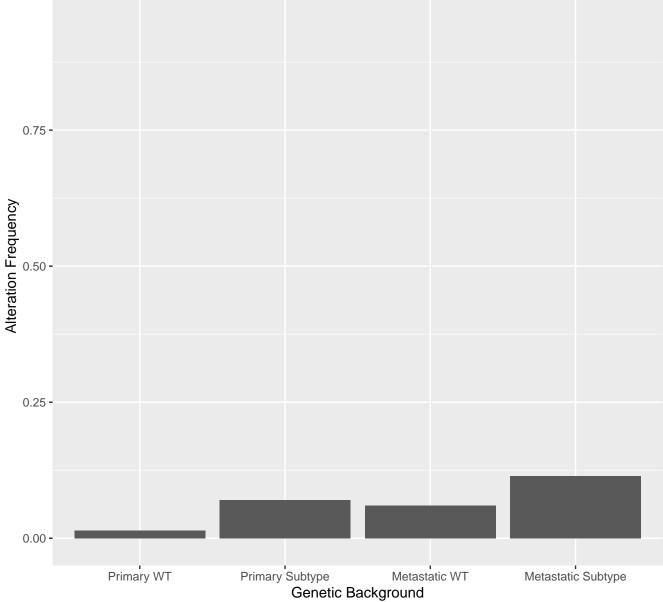
SNAI2 LOF Alterations p=7.71e-01 1.00 -0.75 -



CCAR1 LOF Alterations p=8.94e-02 1.00 -



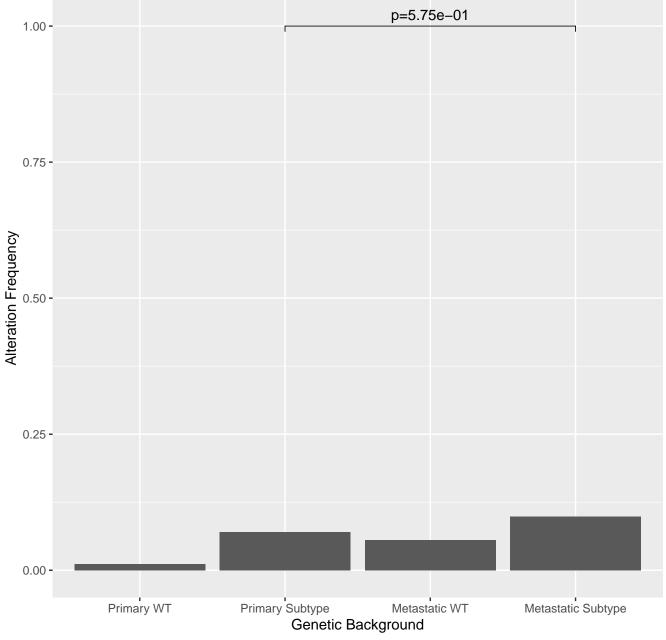
CAPN11 LOF Alterations p=4.12e-01



DAXX LOF Alterations p=4.12e-01 1.00 -0.75 -0.50 -0.25 -0.00 -Primary Subtype Primary WT Metastatic WT Metastatic Subtype

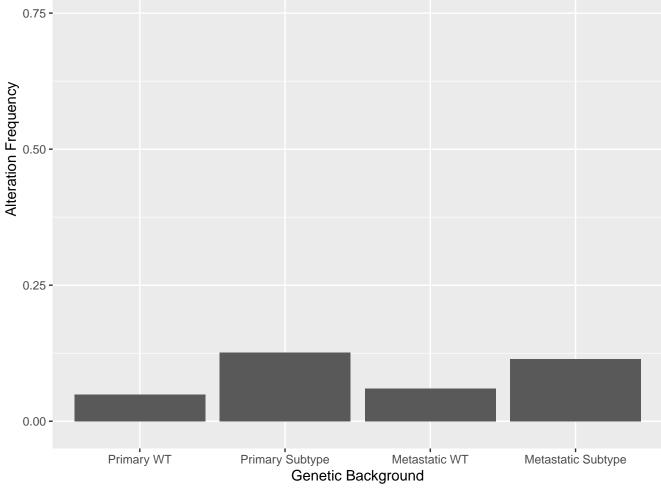
Genetic Background

MAD2L1BP LOF Alterations

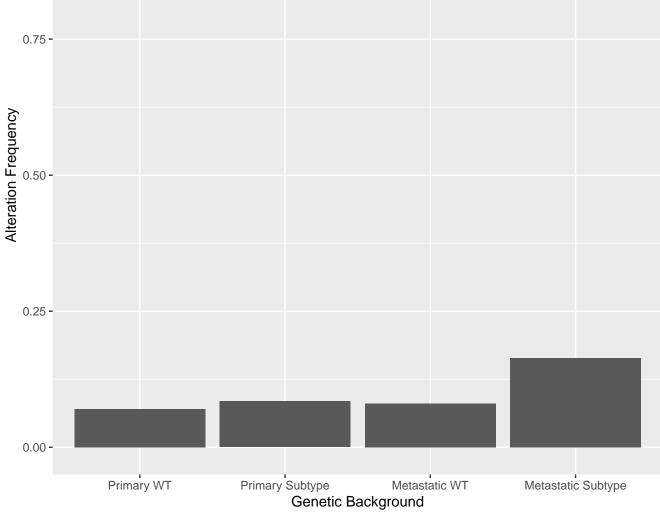


RSPH9 LOF Alterations p=5.75e-01 1.00 -0.75 -0.50 -0.25 -0.00 -Primary Subtype Primary WT Metastatic WT Metastatic Subtype Genetic Background

DOC2A LOF Alterations p=1.00e+00 1.00 -

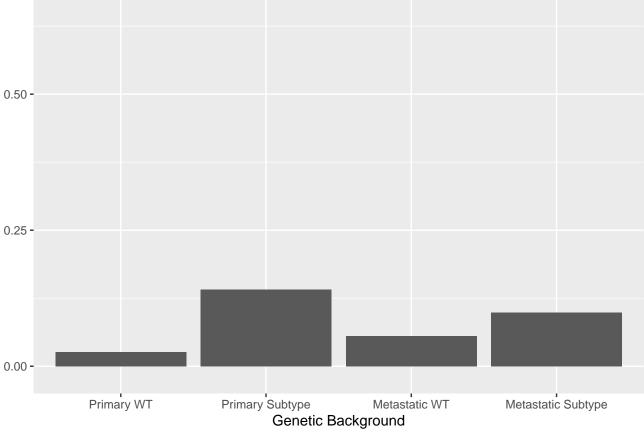


ADO LOF Alterations p=2.09e-01 1.00 -

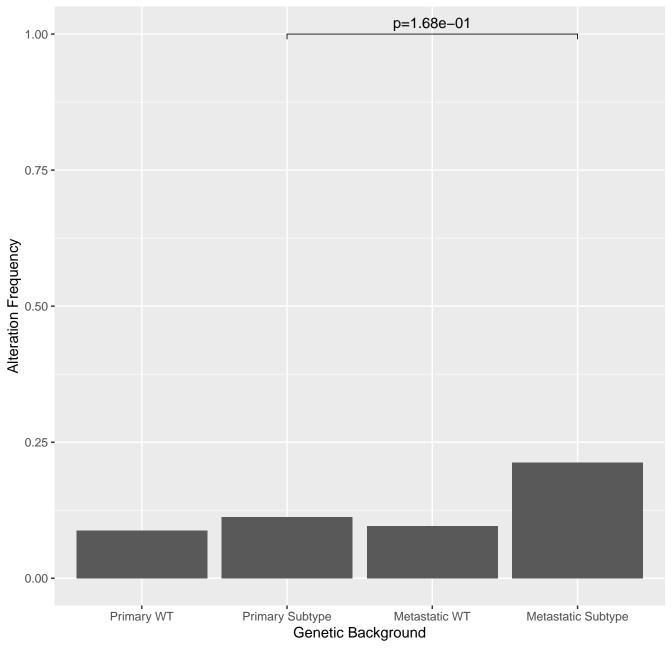


MLN LOF Alterations p=4.12e-01 1.00 -0.75 -0.50 -0.25 -0.00 -Primary Subtype Metastatic WT Metastatic Subtype Primary WT Genetic Background

PSMC3 LOF Alterations p=6.14e-01 1.00 -0.75 -



GNAL LOF Alterations



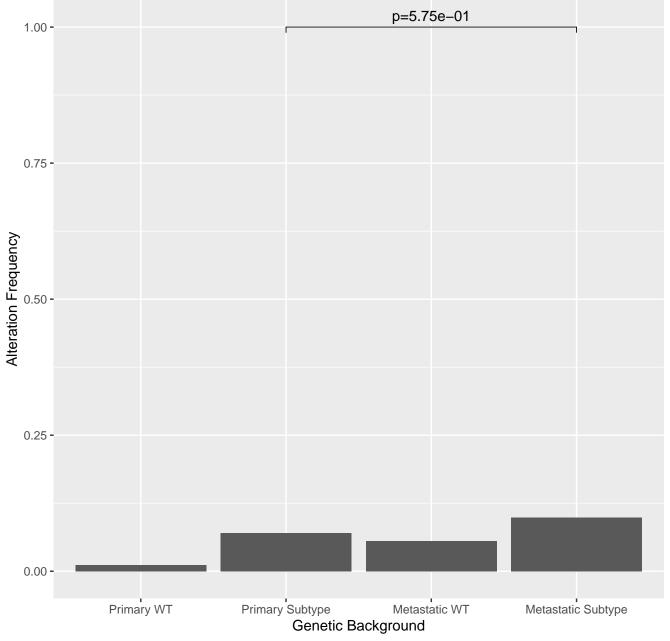
PPARD LOF Alterations p=2.84e-01 1.00 -0.75 -0.50 -0.25 -0.00 -Primary Subtype Primary WT Metastatic WT Metastatic Subtype

Genetic Background

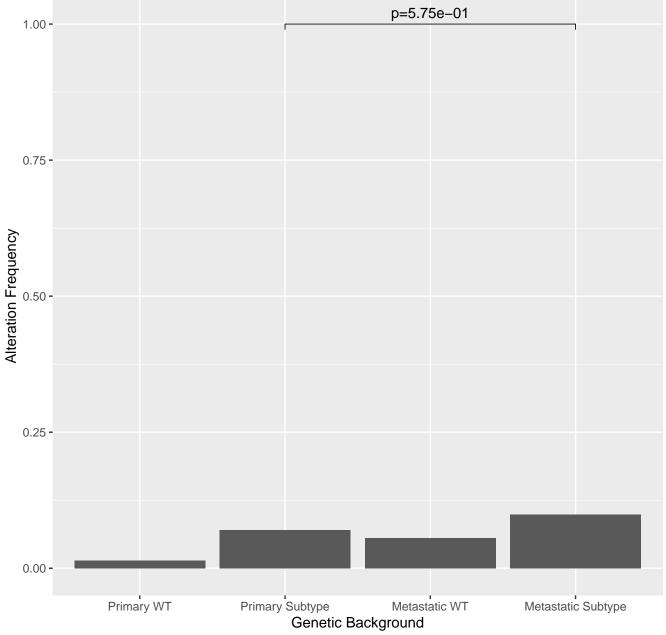
MCCD1 LOF Alterations p=5.75e-01 1.00 -0.75 -0.50 -0.25 -0.00 -Primary Subtype Primary WT Metastatic WT Metastatic Subtype

Genetic Background

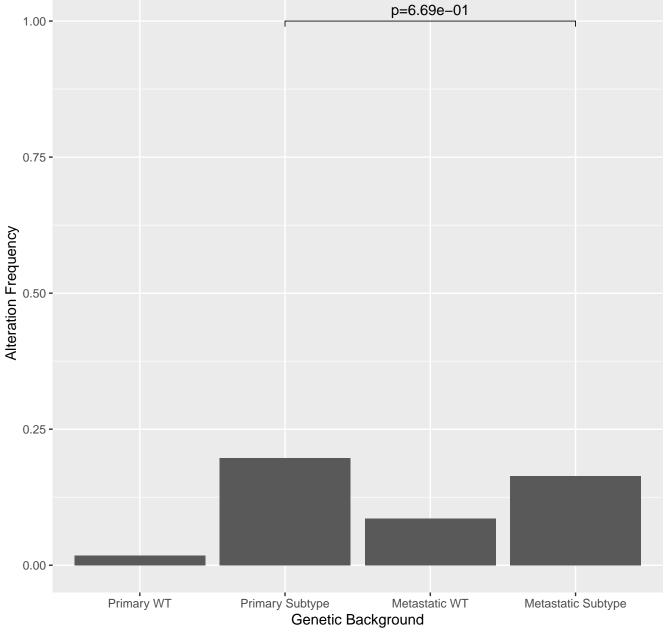
GTPBP2 LOF Alterations



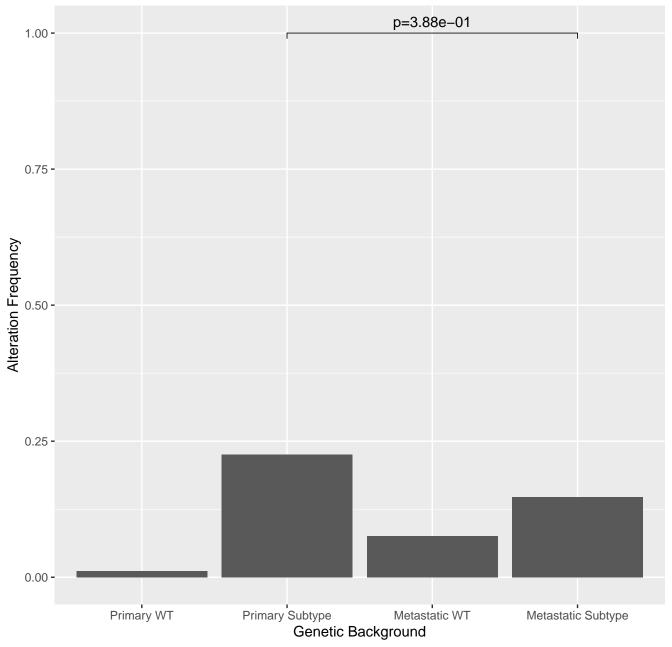
LSM2 LOF Alterations



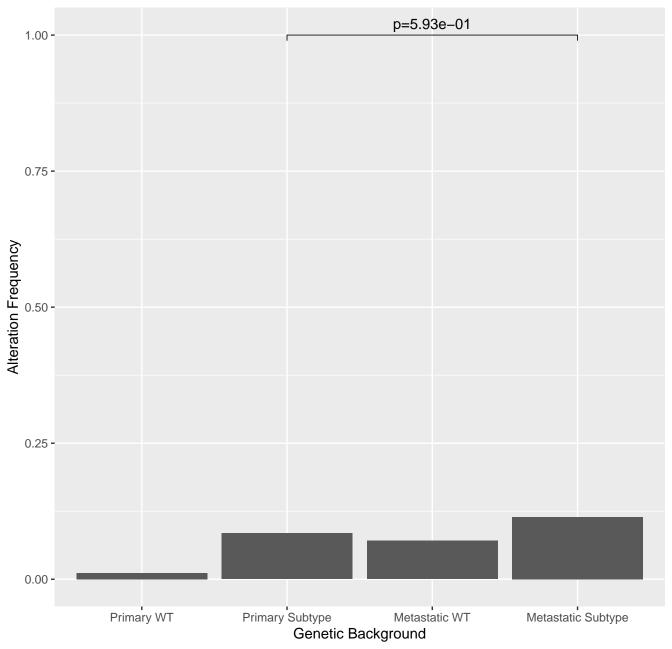
RAB3GAP2 LOF Alterations



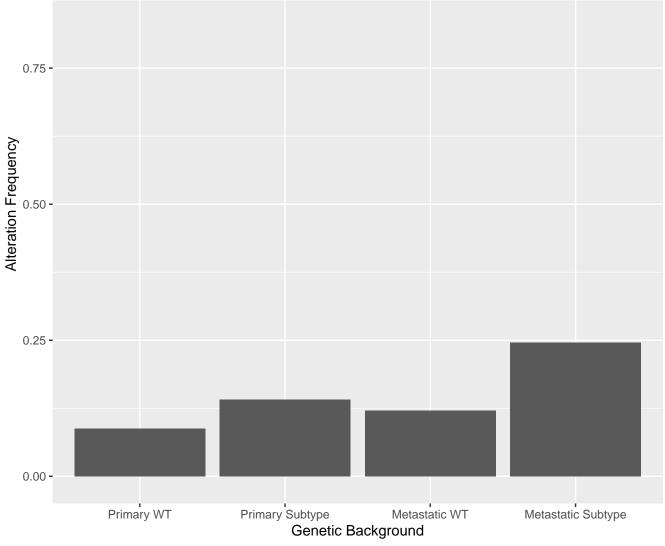
DUSP10 LOF Alterations



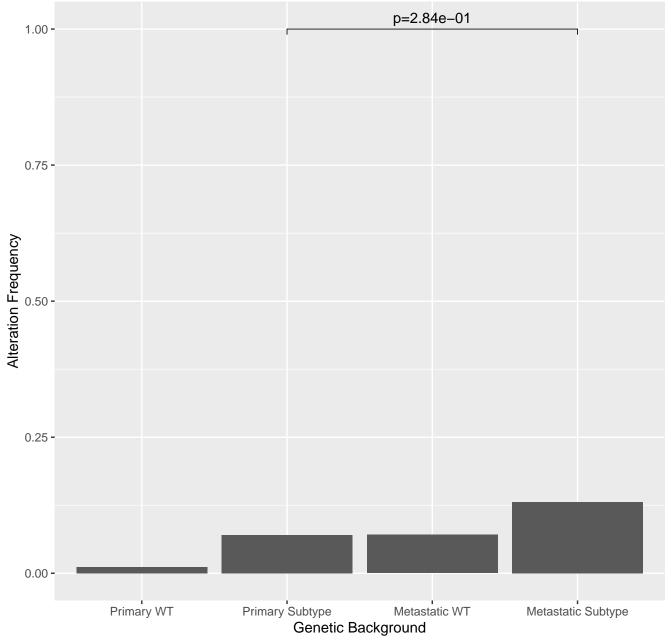
YIPF3 LOF Alterations



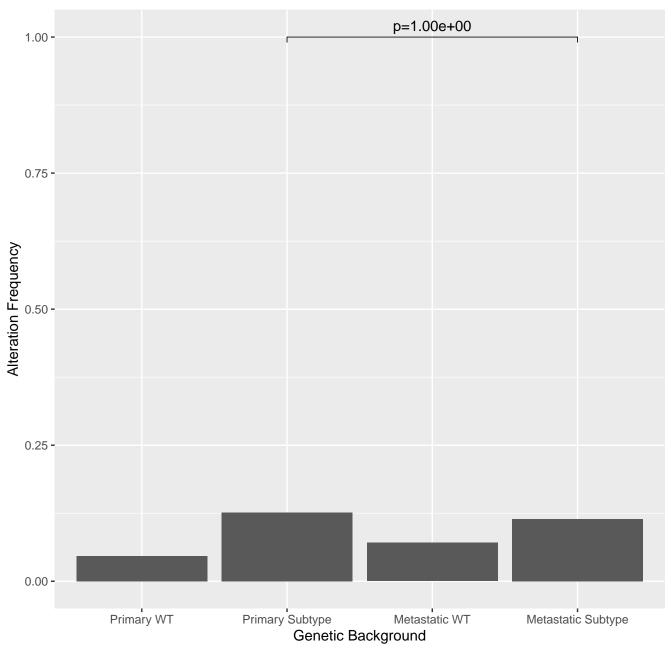
YES1 LOF Alterations p=1.38e-01 1.00 -



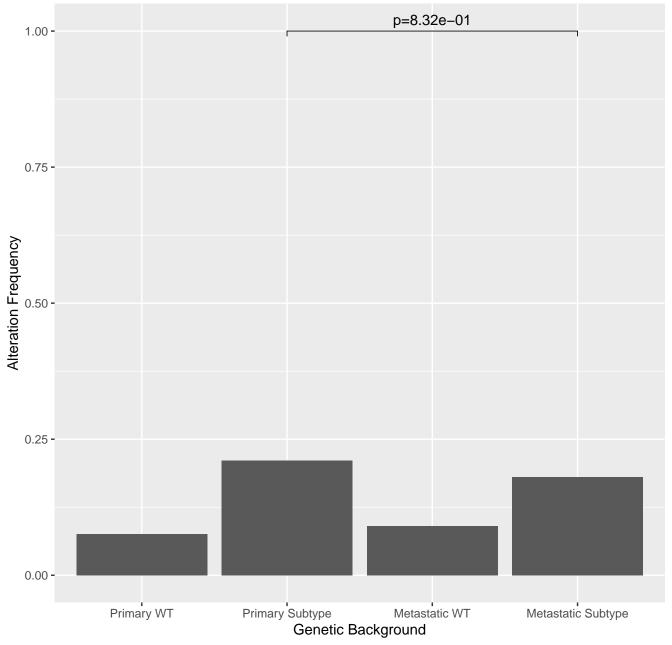
FOXP4 LOF Alterations



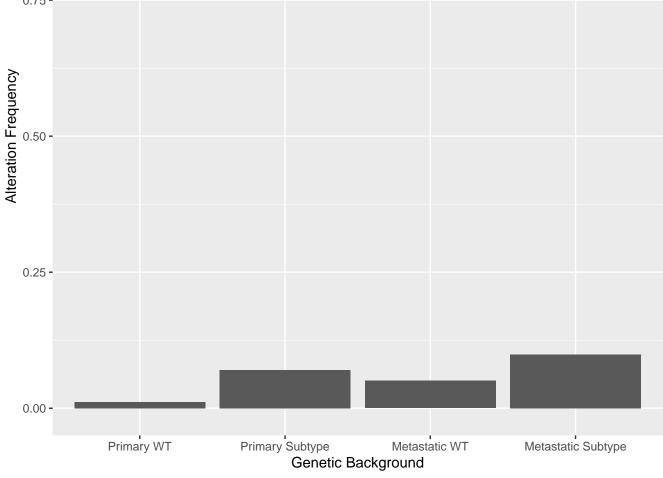
ZNF764 LOF Alterations



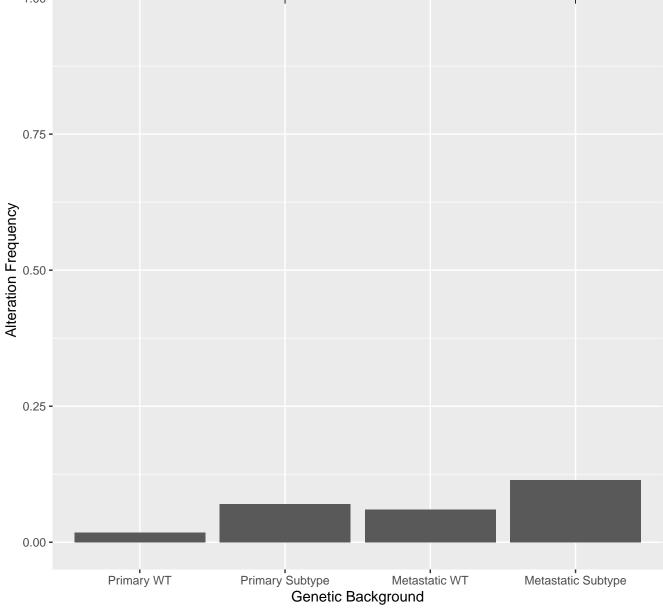
SHCBP1 LOF Alterations



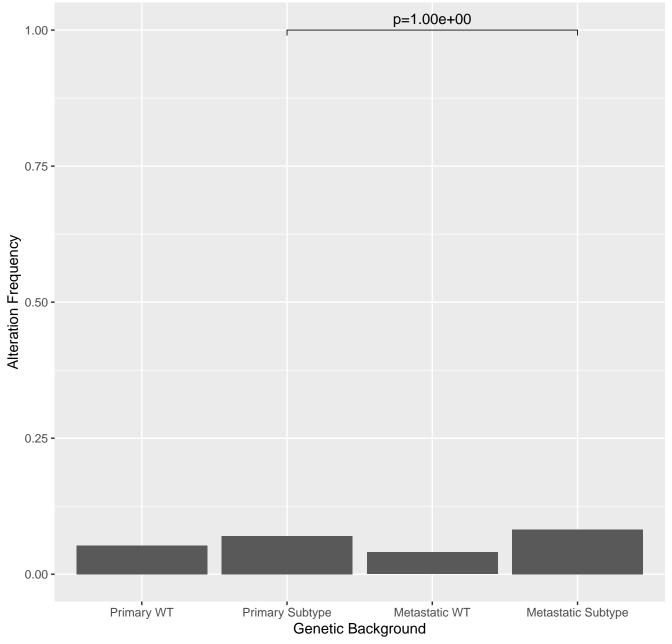
C4BPA LOF Alterations p=5.75e-01 1.00 -0.75 -



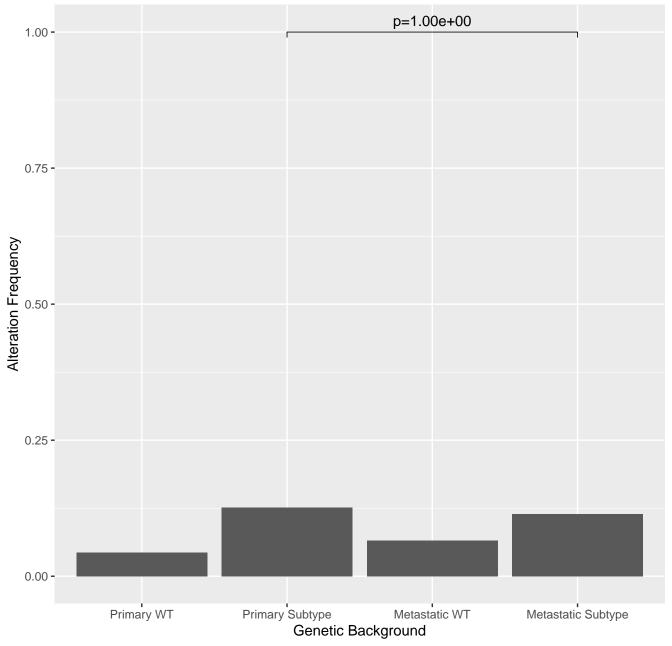
C6orf106 LOF Alterations p=4.12e-01



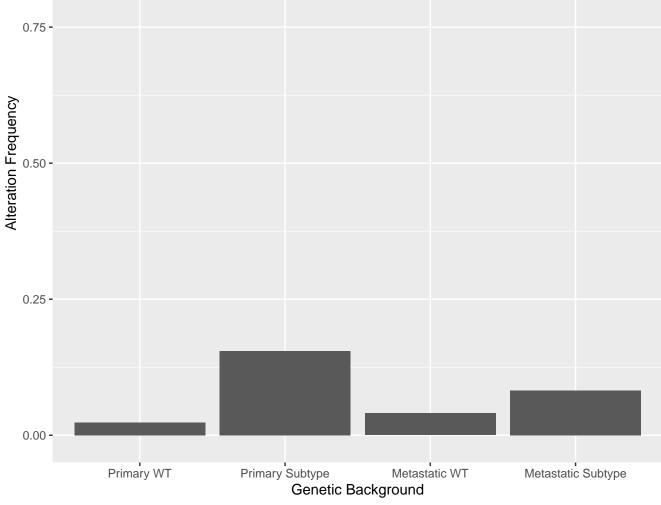
C8orf22 LOF Alterations



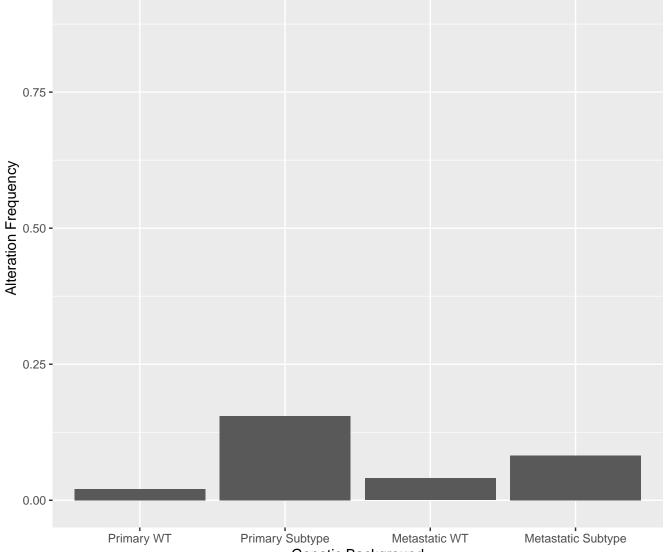
SEPHS2 LOF Alterations

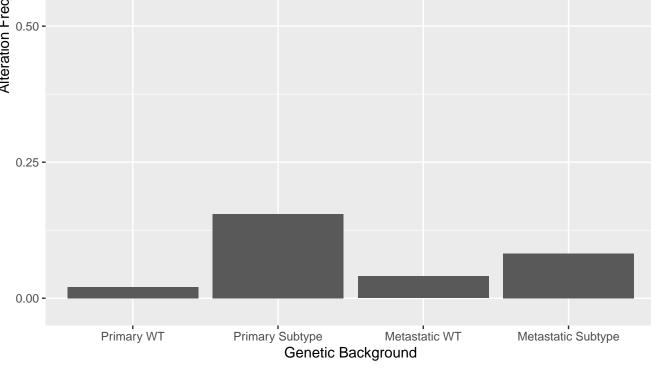


CD82 LOF Alterations p=3.12e-01 1.00 -



CHST1 LOF Alterations p=3.12e-01 1.00 -

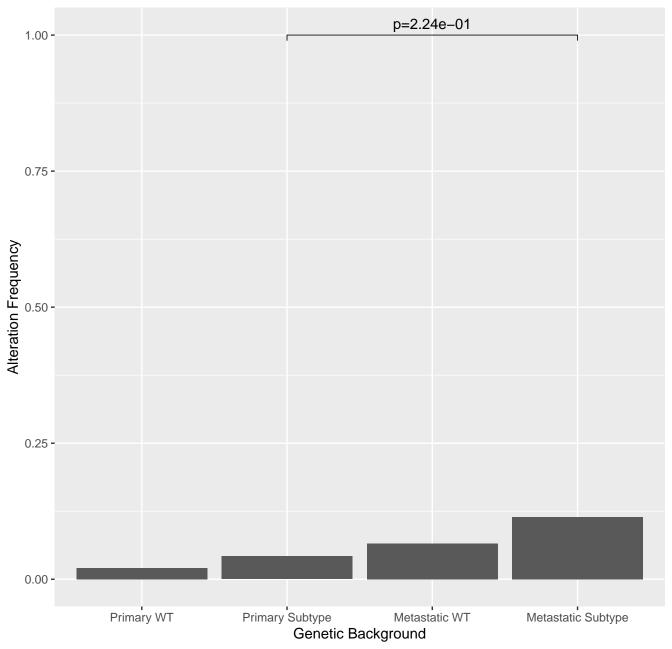




PCDHGB7 LOF Alterations p=2.09e-01 1.00 -0.75 -0.50 -0.25 -0.00 -

Primary Subtype Primary WT Metastatic WT Metastatic Subtype Genetic Background

LCN10 LOF Alterations



DEF6 LOF Alterations p=2.84e-01 1.00 -0.75 -0.50 -0.25 -0.00 -

Metastatic WT

Metastatic Subtype

Primary Subtype

Genetic Background

Primary WT

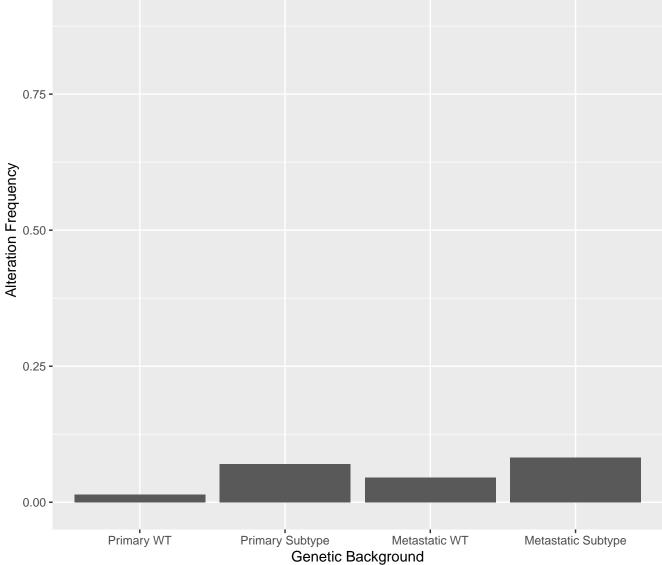
PHPT1 LOF Alterations p=3.45e-01 1.00 -0.75 -0.50 -0.25 -0.00 -Primary Subtype Primary WT Metastatic WT Metastatic Subtype

Genetic Background

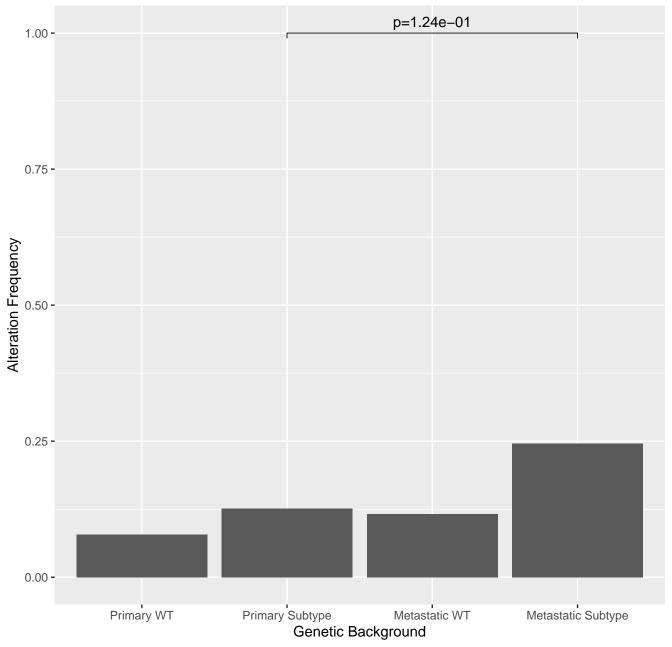
PPT2 LOF Alterations p=5.75e-01 1.00 -0.75 -0.50 -0.25 -0.00 -Primary Subtype Primary WT Metastatic WT Metastatic Subtype Genetic Background

Alteration Frequency

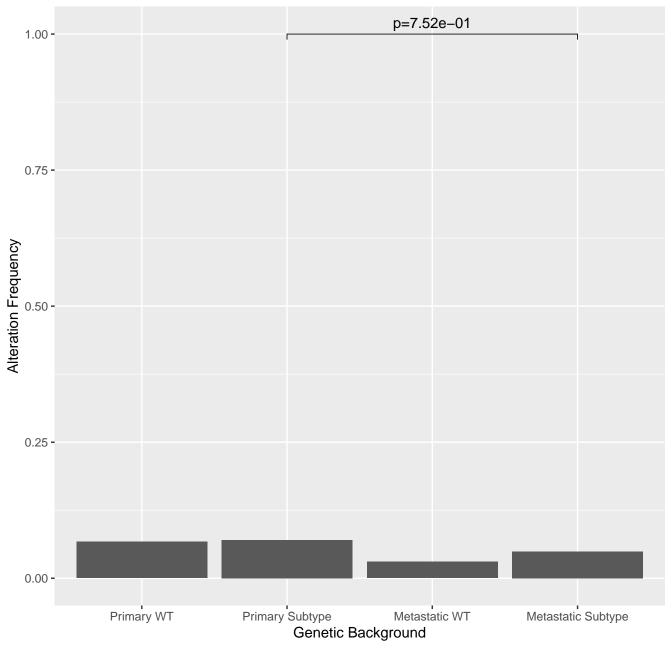
IL19 LOF Alterations p=1.00e+00 1.00 -



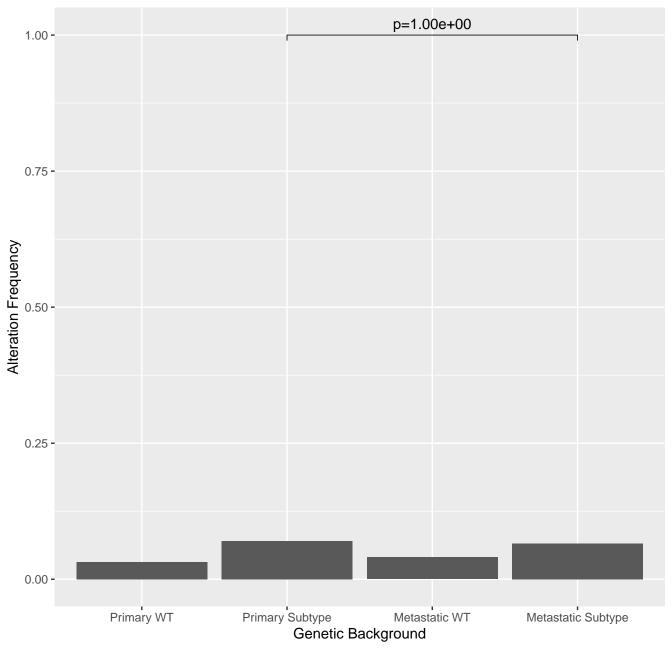
MYL12A LOF Alterations



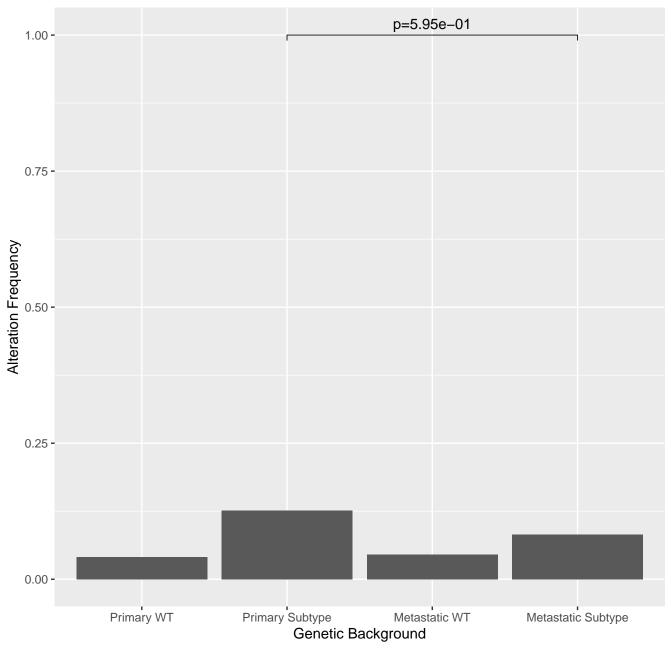
UBE2V2 LOF Alterations



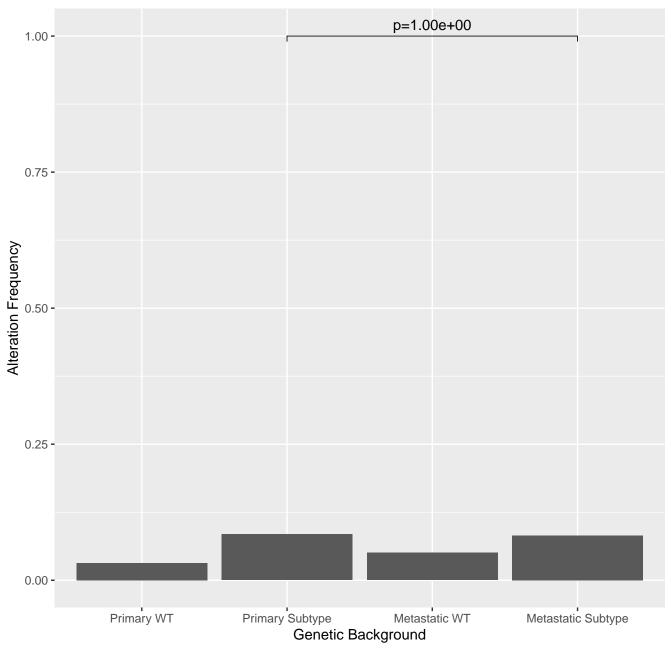
TMEM68 LOF Alterations



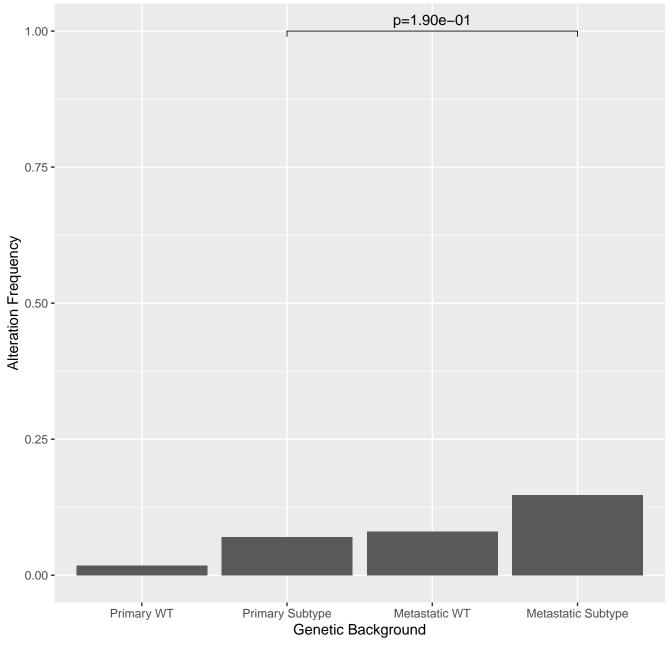
SLC5A11 LOF Alterations



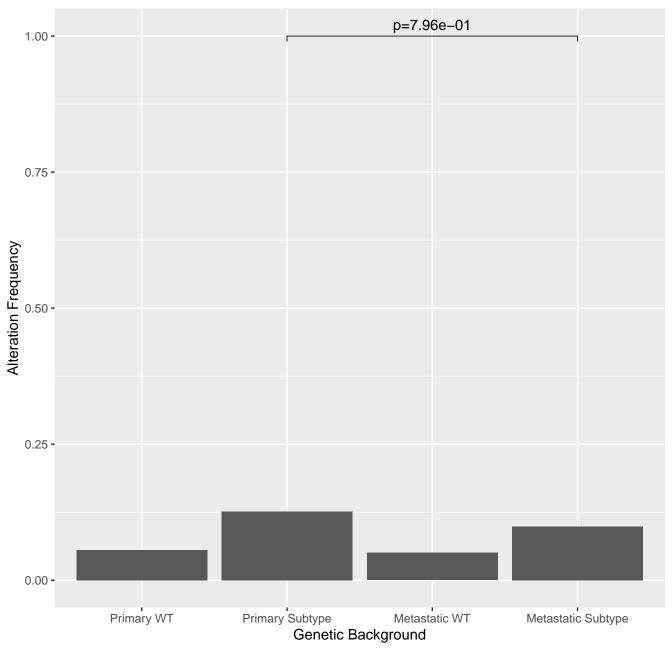
TOX LOF Alterations



UHRF1BP1 LOF Alterations

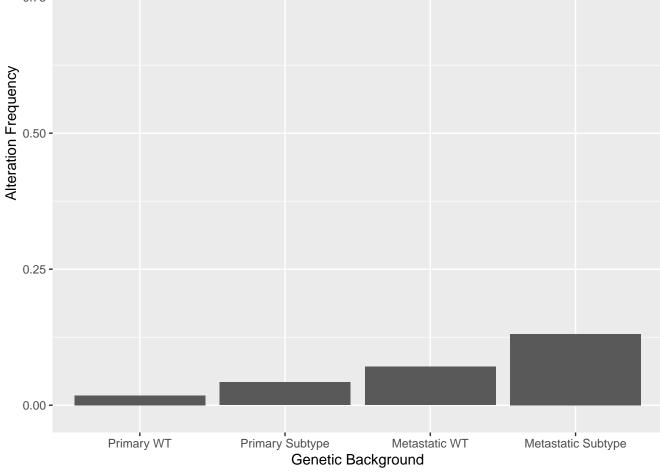


FAM57B LOF Alterations

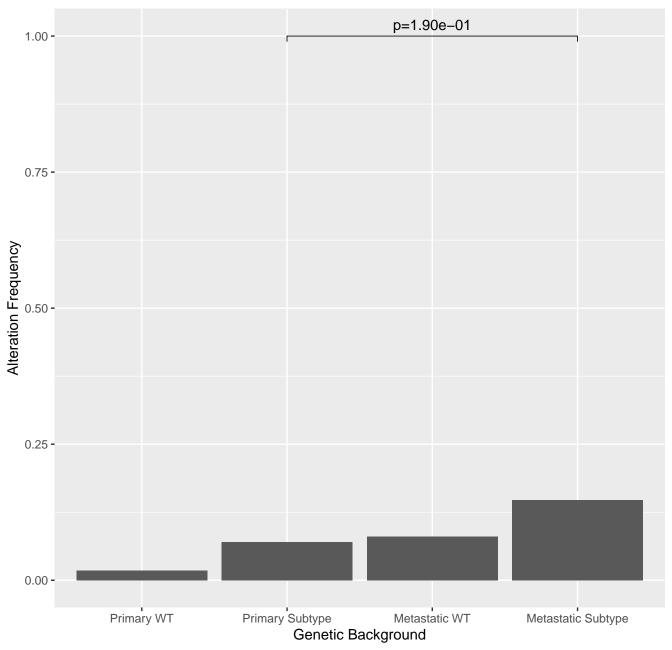


PHF1 LOF Alterations p=4.12e-01 1.00 -0.75 -Alteration Frequency 0.50 -0.25 -0.00 -Primary Subtype Primary WT Metastatic WT Metastatic Subtype Genetic Background

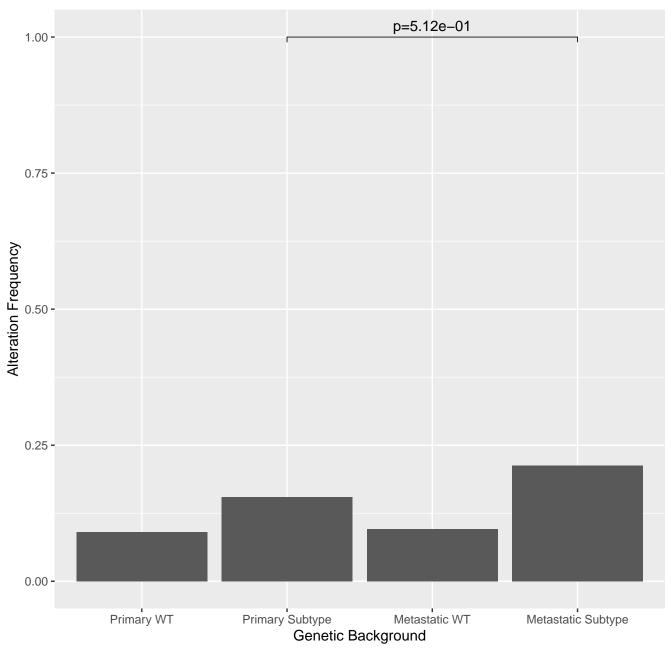
ARRDC1 LOF Alterations p=1.41e-01 1.00 -0.75 -



TMTC2 LOF Alterations



CSGALNACT2 LOF Alterations

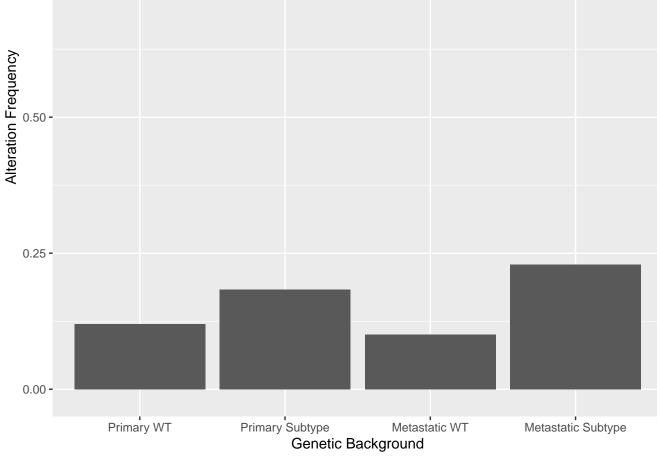


HDAC3 LOF Alterations p=2.09e-01 1.00 -0.75 -0.50 -0.25 -0.00 -Primary Subtype Primary WT Metastatic WT Metastatic Subtype

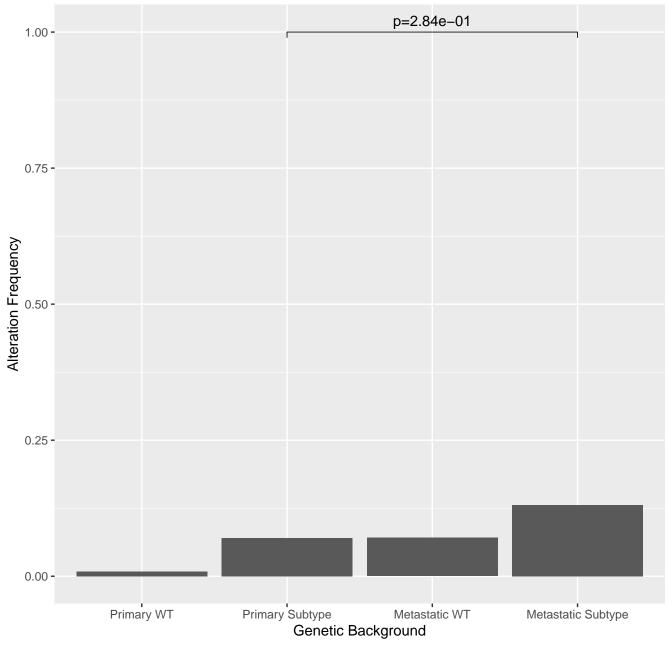
Genetic Background

Alteration Frequency

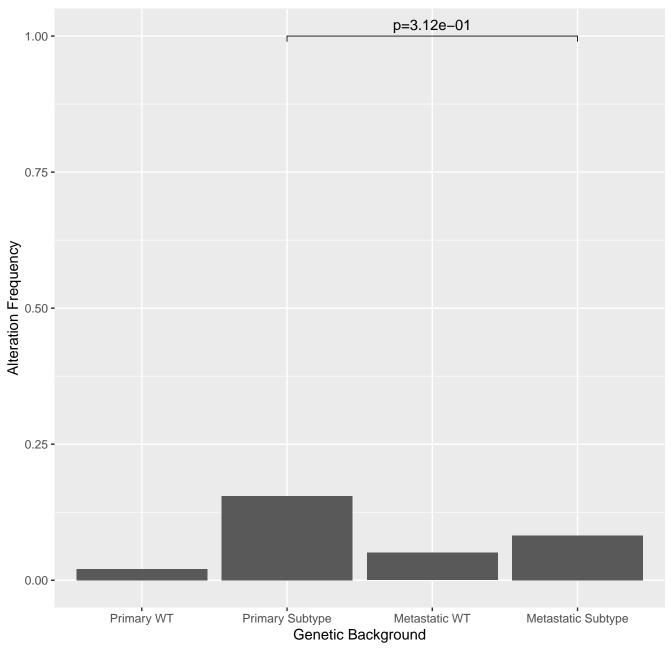
AGAP4 LOF Alterations p=5.34e-01 1.00 -0.75 -



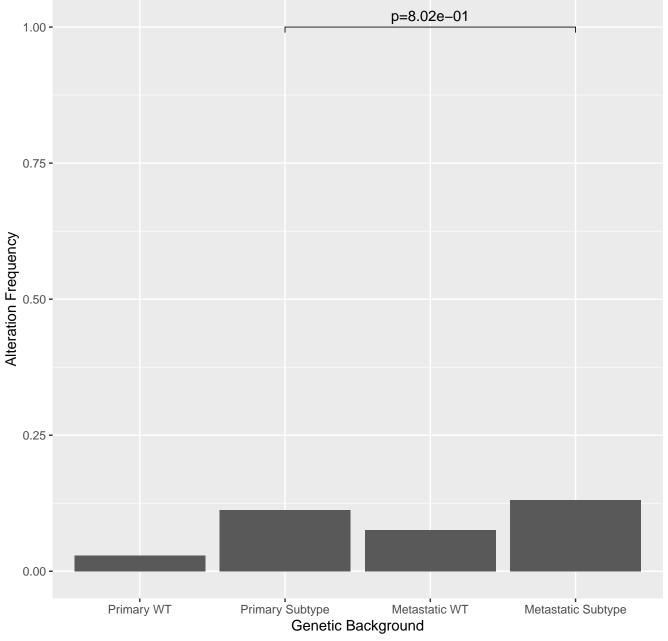
B3GALT4 LOF Alterations



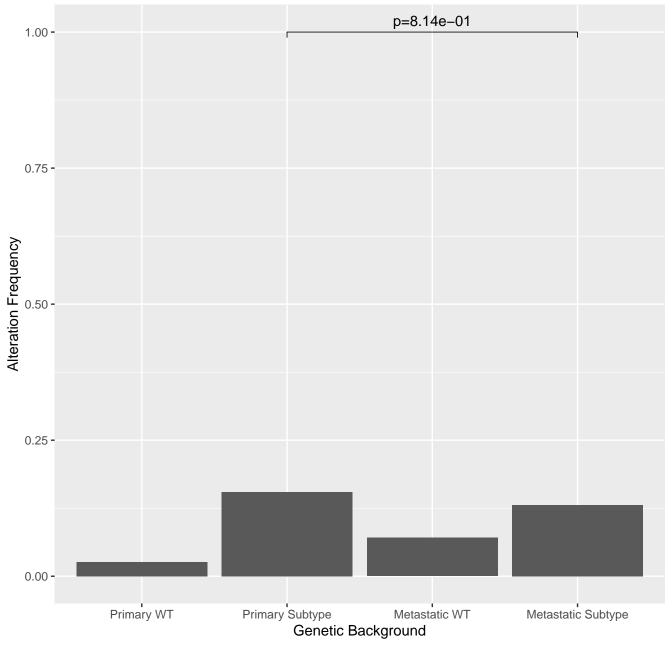
TP53I11 LOF Alterations



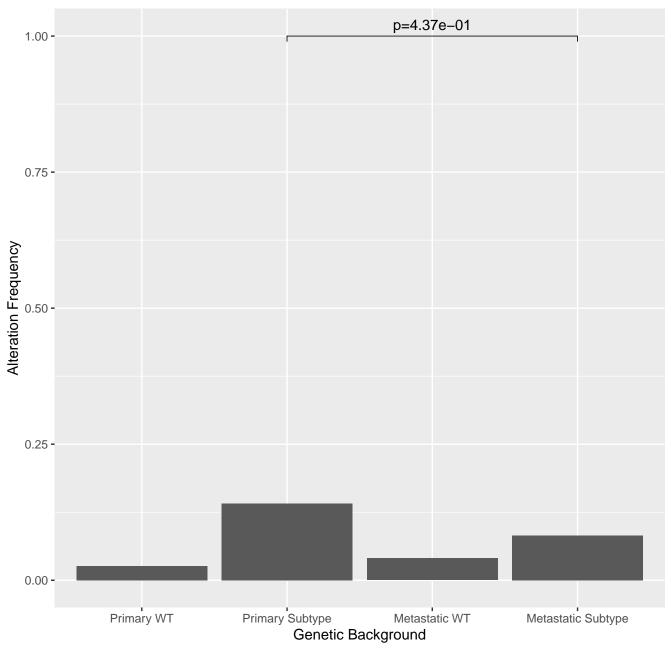
VASH2 LOF Alterations



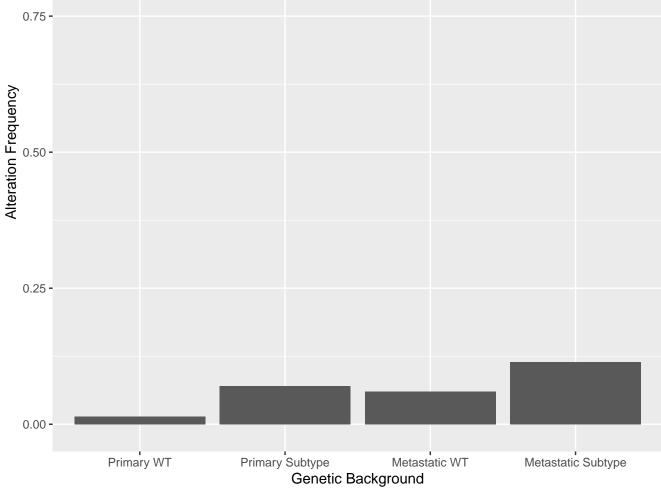
MYBPC3 LOF Alterations



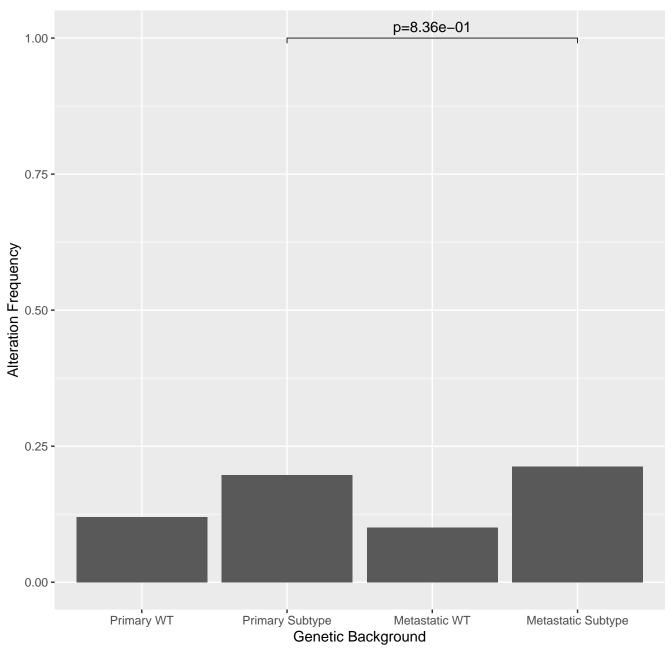
CREB3L1 LOF Alterations



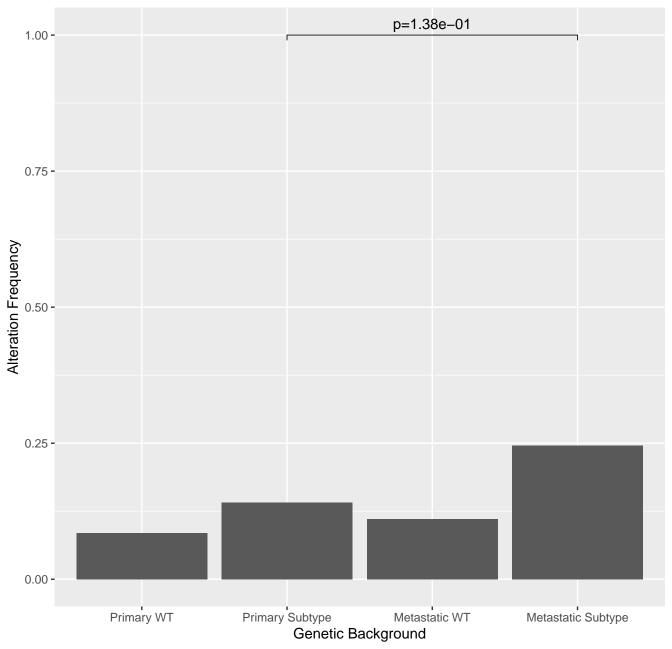
C6orf1 LOF Alterations p=4.12e-01 1.00 -



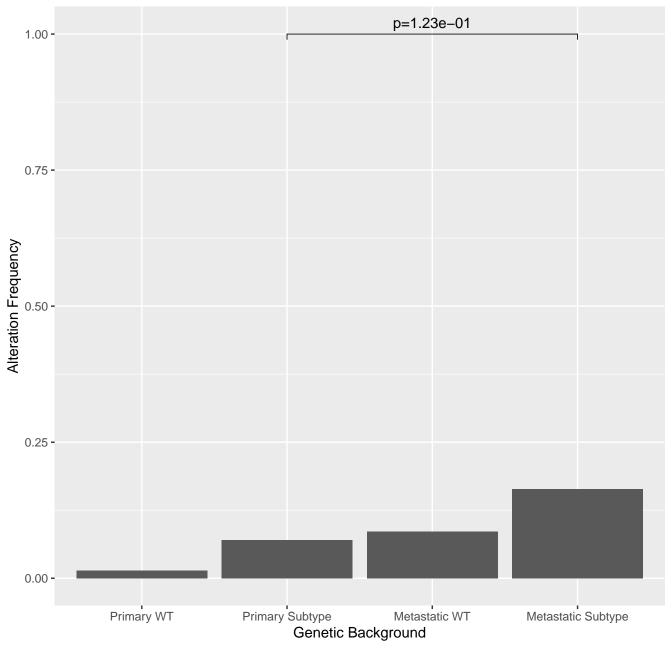
TTC39C LOF Alterations



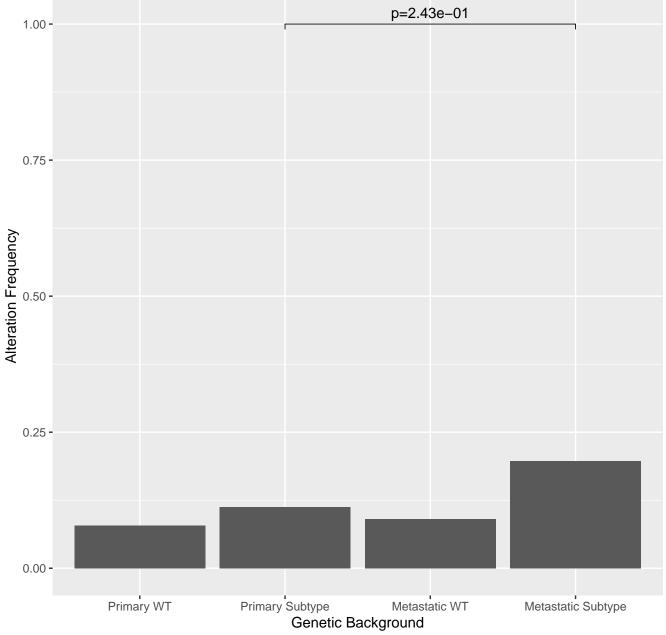
CLUL1 LOF Alterations



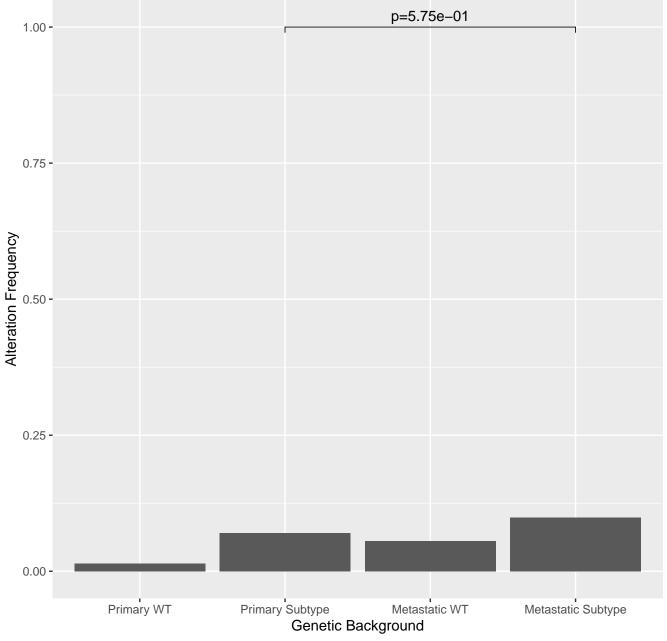
LRFN2 LOF Alterations



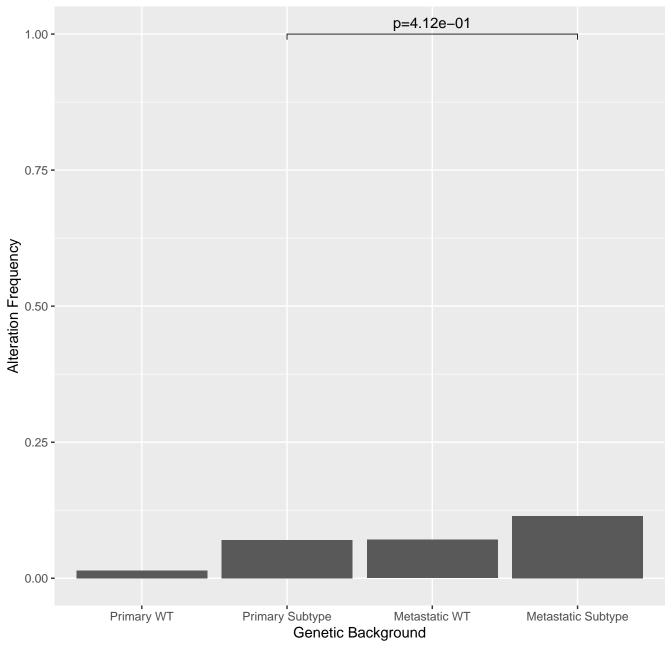
CEP192 LOF Alterations



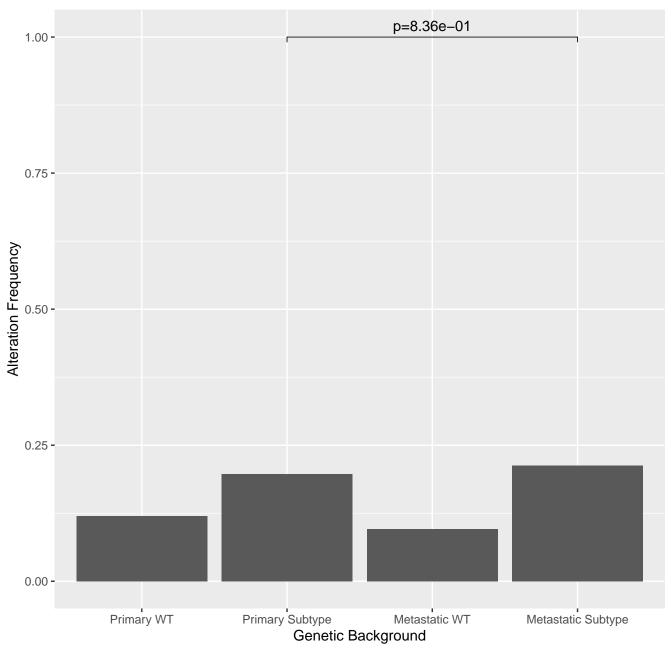
LY6G5B LOF Alterations



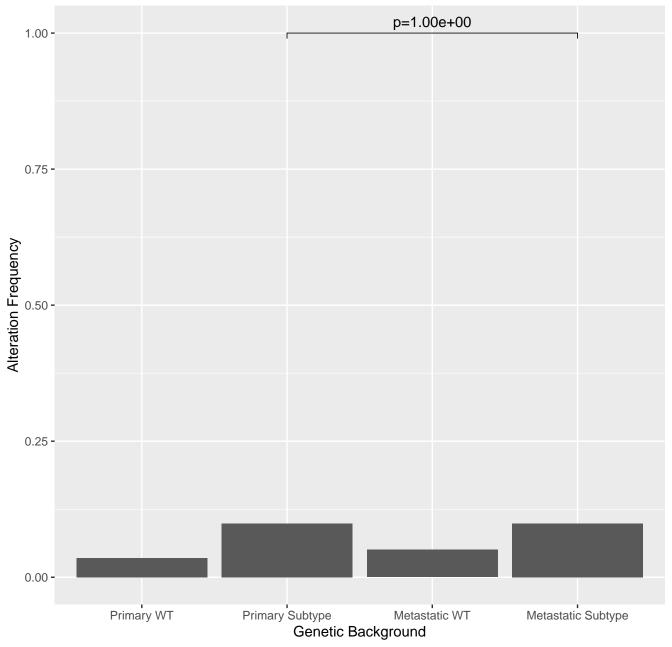
ZFAND3 LOF Alterations



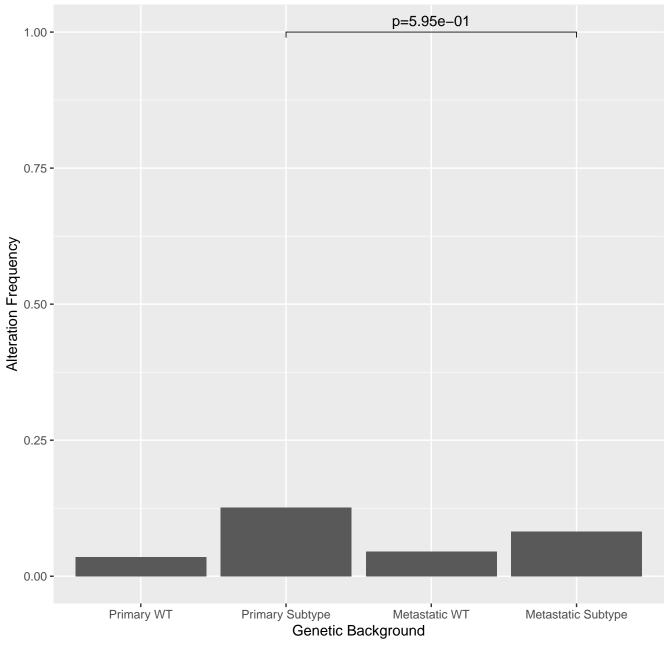
LAMA3 LOF Alterations



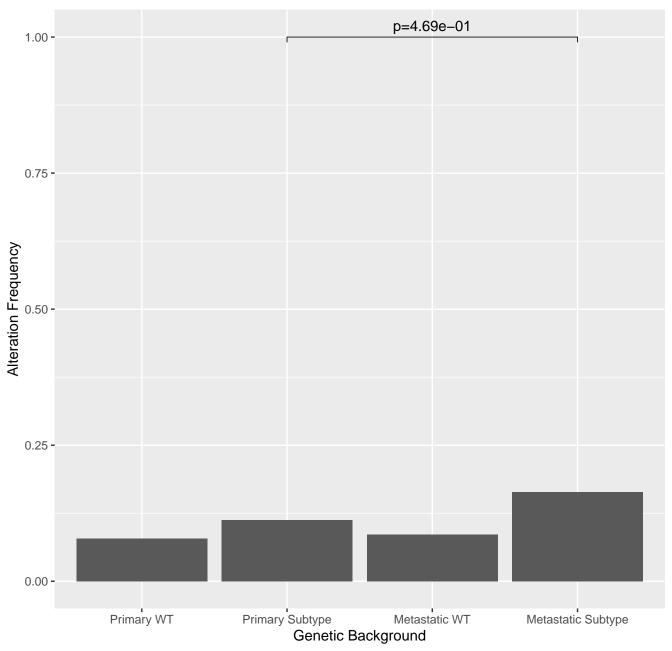
GDE1 LOF Alterations



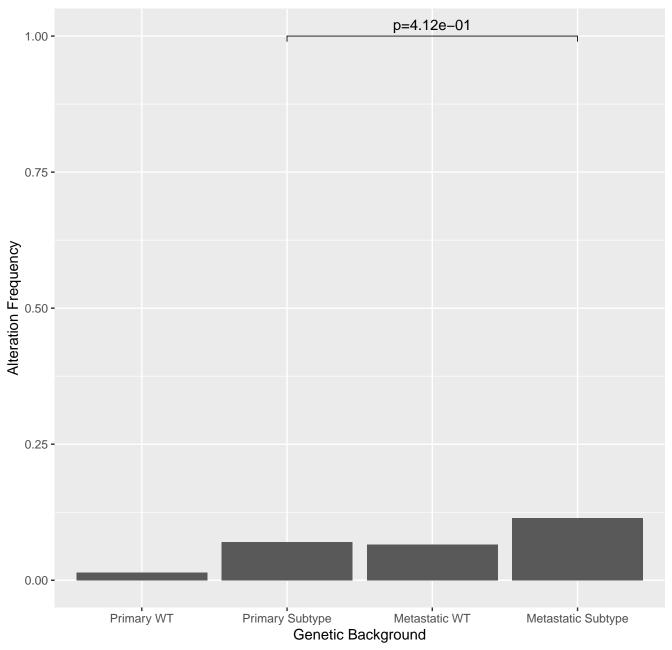
HSD3B7 LOF Alterations



ZNF519 LOF Alterations



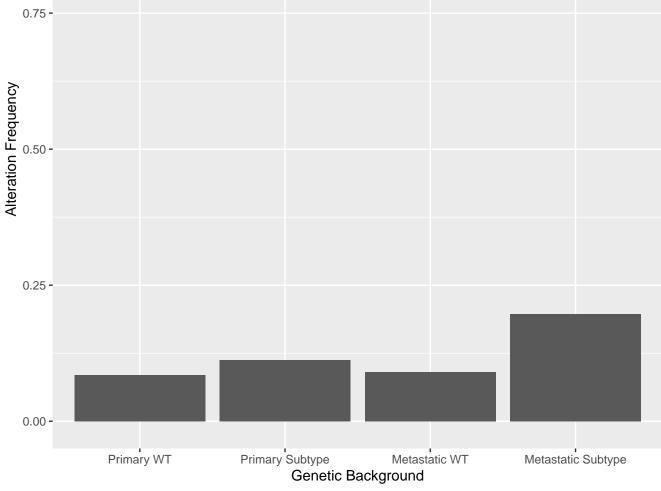
TMEM63B LOF Alterations



NUDT3 LOF Alterations p=4.12e-01 1.00 -0.75 -0.50 -0.25 -0.00 -Primary Subtype Primary WT Metastatic WT Metastatic Subtype Genetic Background

Alteration Frequency

PTPN2 LOF Alterations p=2.43e-01 1.00 -



AGPAT1 LOF Alterations p=4.12e-01 1.00 -0.75 -0.50 -0.25 -0.00 -

Primary Subtype

Genetic Background

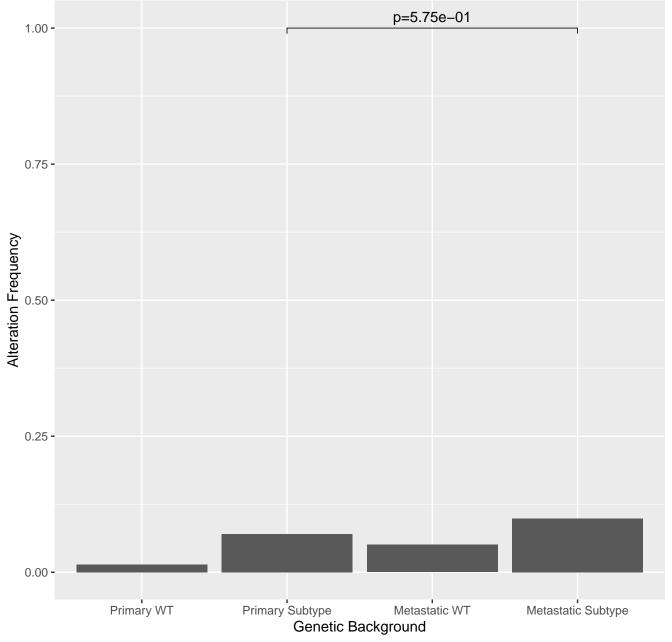
Metastatic WT

Metastatic Subtype

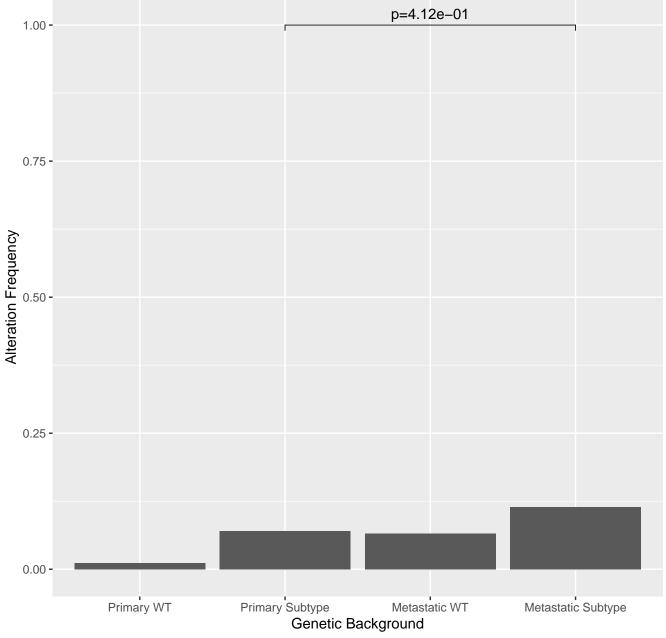
Primary WT

Alteration Frequency

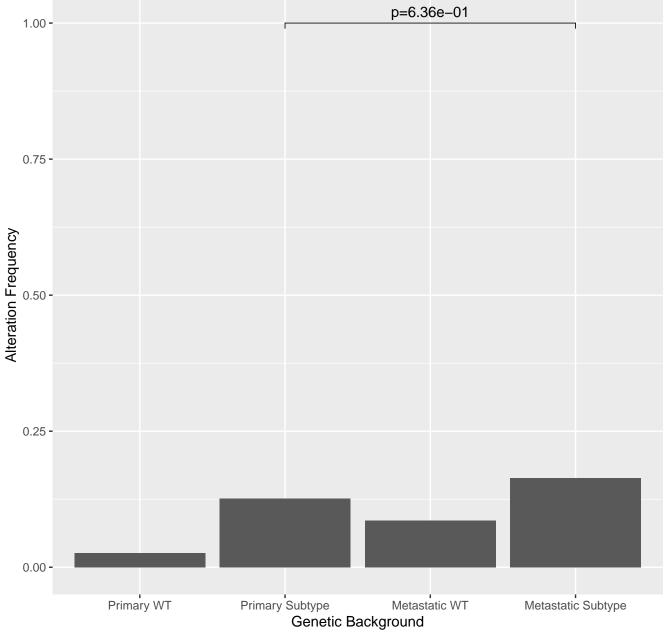
CSNK2B LOF Alterations



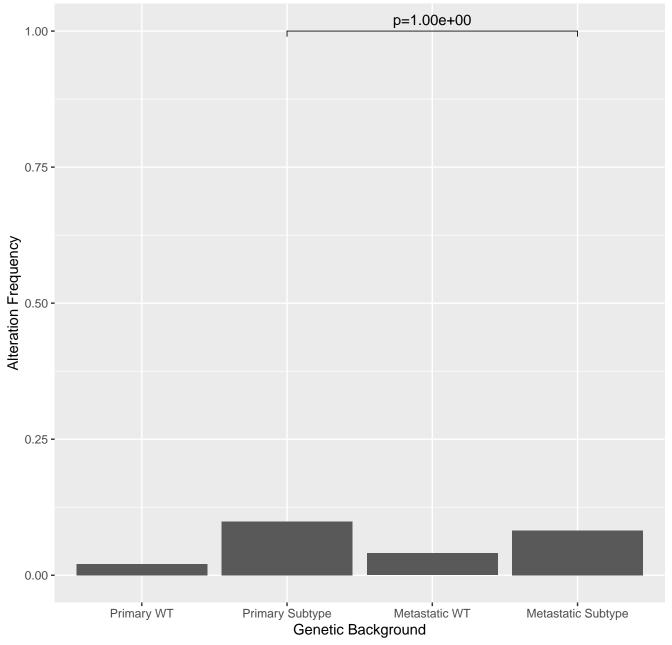
GUCA1B LOF Alterations



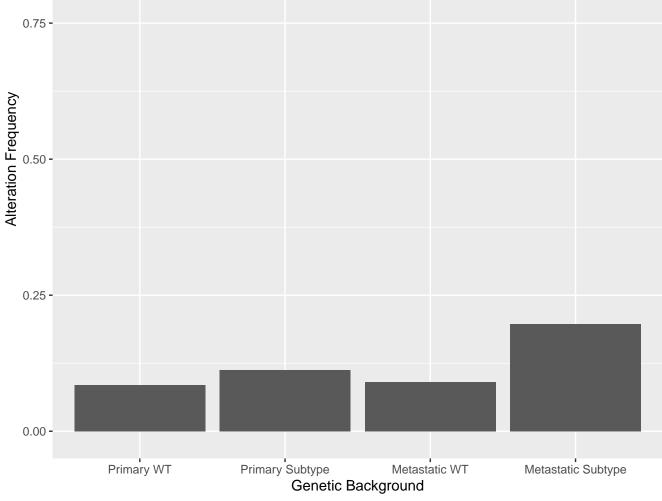
PPP2R5A LOF Alterations



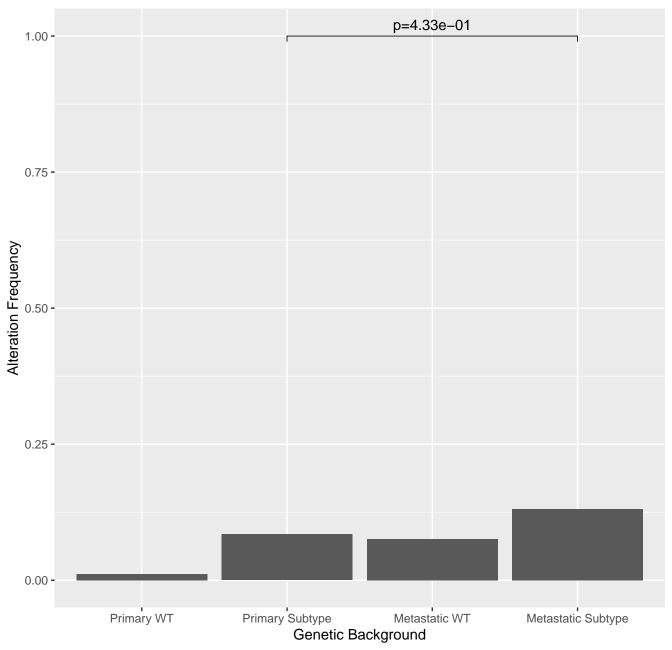
ALDH9A1 LOF Alterations



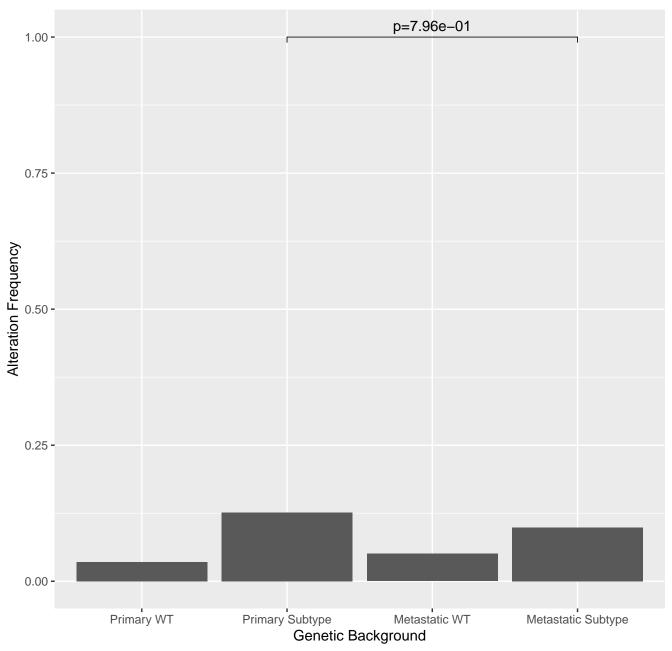
PSMG2 LOF Alterations p=2.43e-01 1.00 -



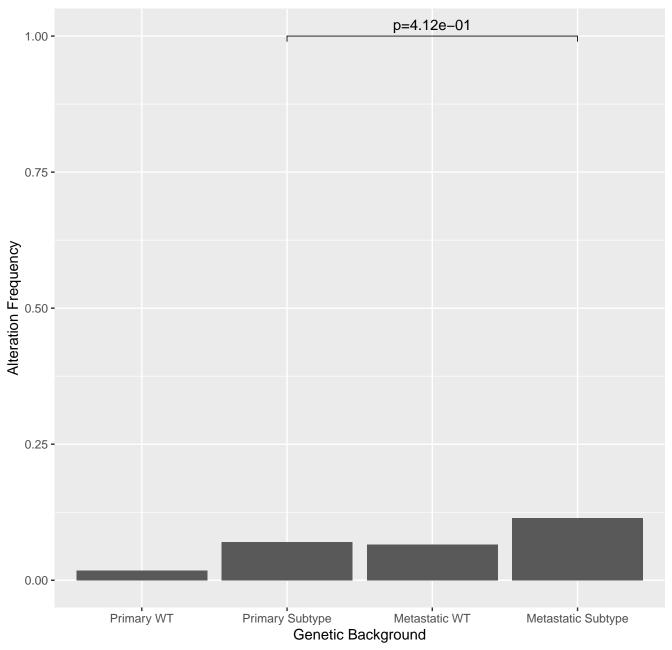
TJAP1 LOF Alterations



FBXL19 LOF Alterations



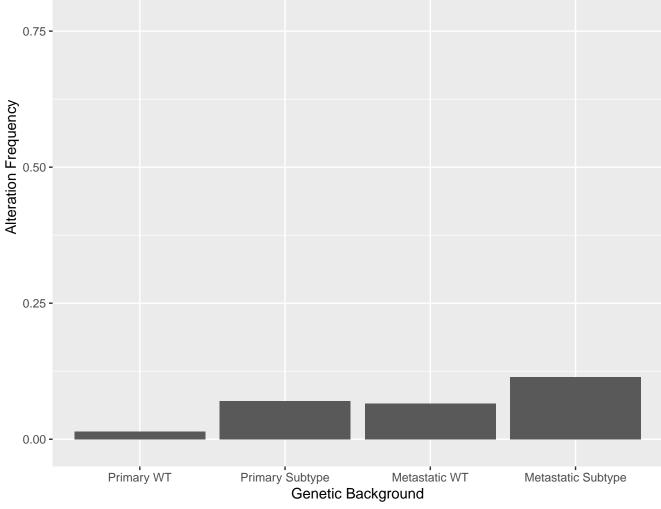
TAF11 LOF Alterations



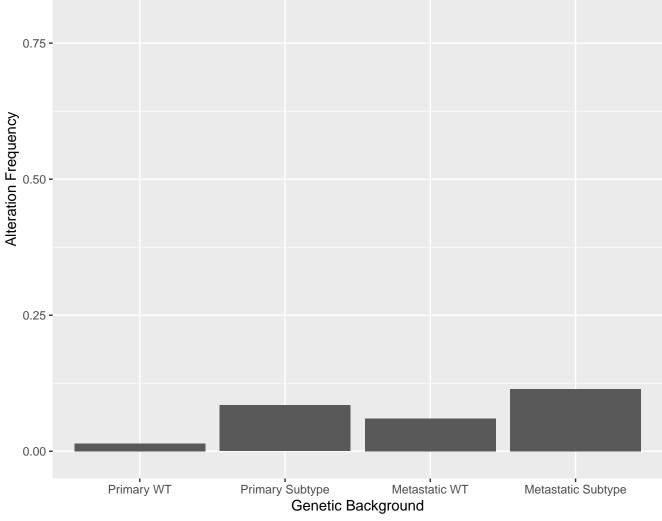
MED20 LOF Alterations p=2.84e-01 1.00 -0.75 -0.50 -0.25 -0.00 -Primary Subtype Metastatic WT Primary WT Metastatic Subtype

Genetic Background

GRM4 LOF Alterations p=4.12e-01 1.00 -



ABCC10 LOF Alterations p=5.93e-01 1.00 -



SMYD2 LOF Alterations p=8.10e-01 1.00 -0.75 -0.50 -0.25 -0.00 -

Primary Subtype

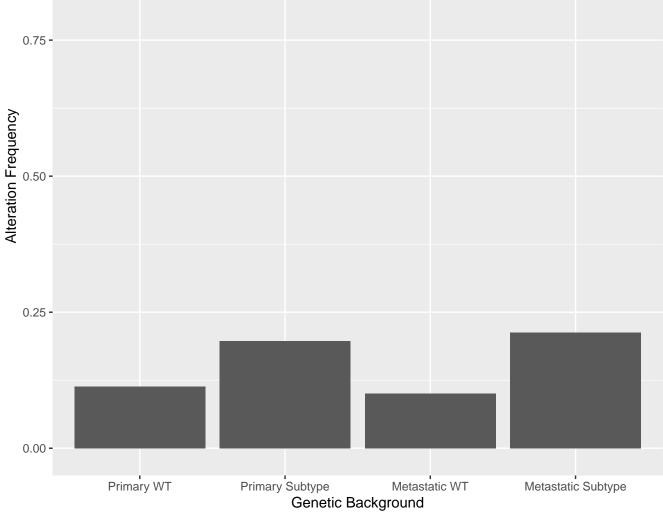
Genetic Background

Metastatic WT

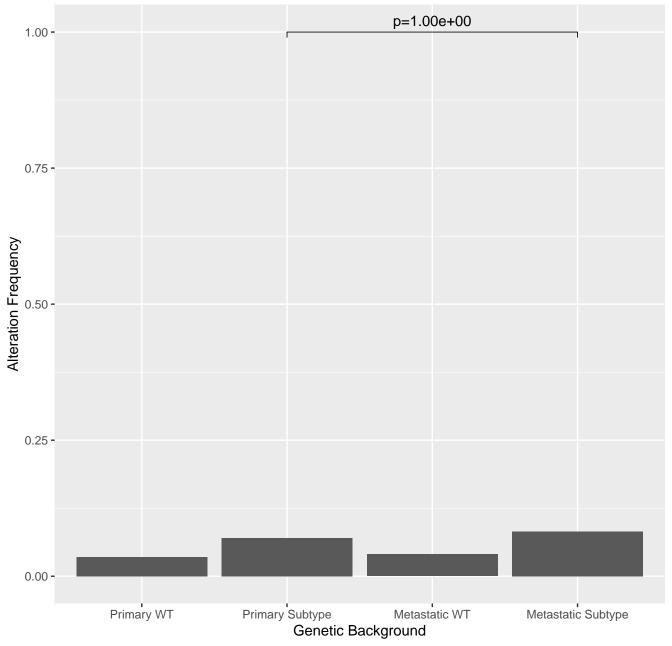
Metastatic Subtype

Primary WT

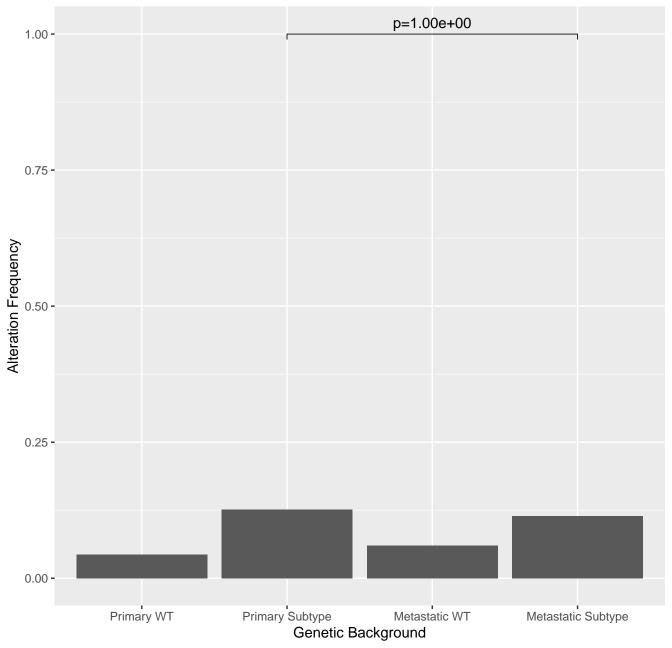
RBBP8 LOF Alterations p=8.36e-01 1.00 -



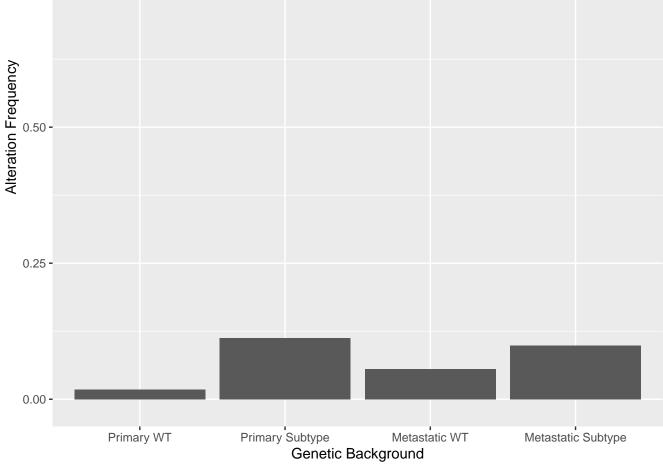
ATP6V1H LOF Alterations



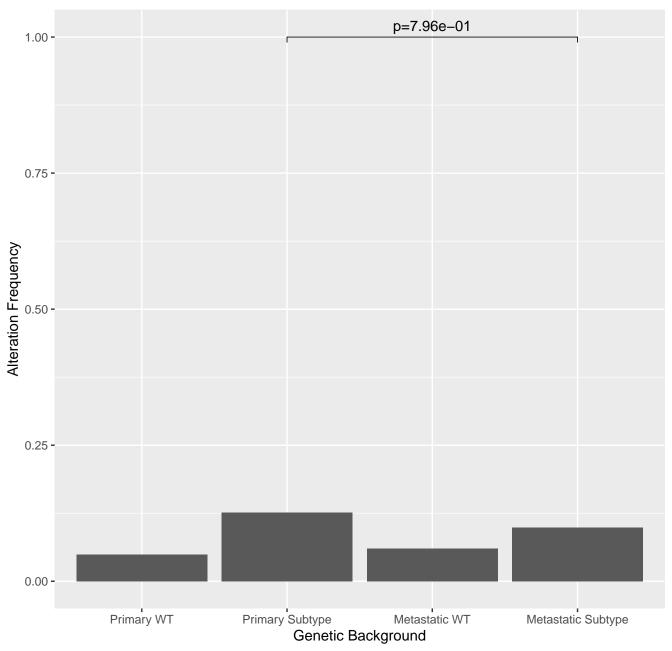
DCTPP1 LOF Alterations



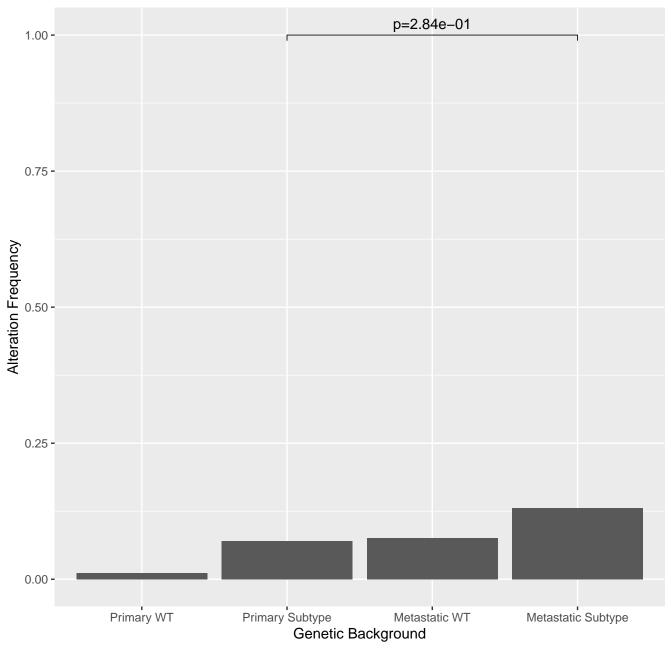
OR4B1 LOF Alterations p=1.00e+00 1.00 -0.75 -



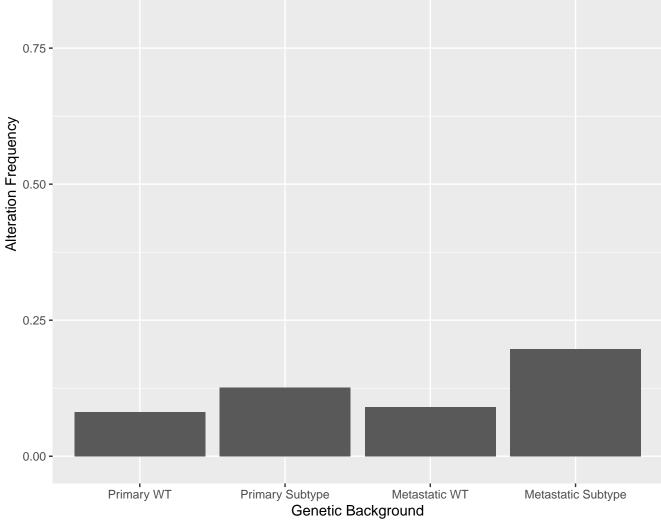
TAOK2 LOF Alterations



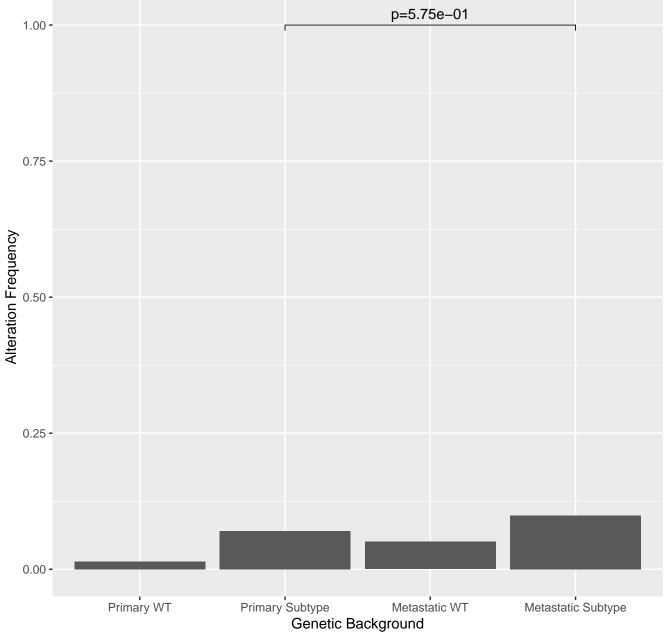
TAF8 LOF Alterations



RAB12 LOF Alterations p=3.59e-01 1.00 -



GPSM3 LOF Alterations 1.00 -



XPO5 LOF Alterations p=7.85e-01 1.00 -0.75 -0.50 -0.25 -0.00 -

Primary Subtype

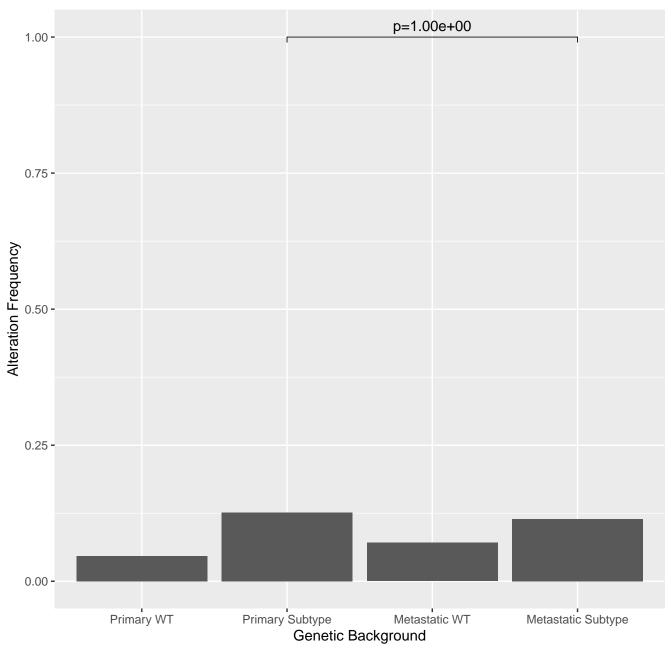
Genetic Background

Metastatic WT

Metastatic Subtype

Primary WT

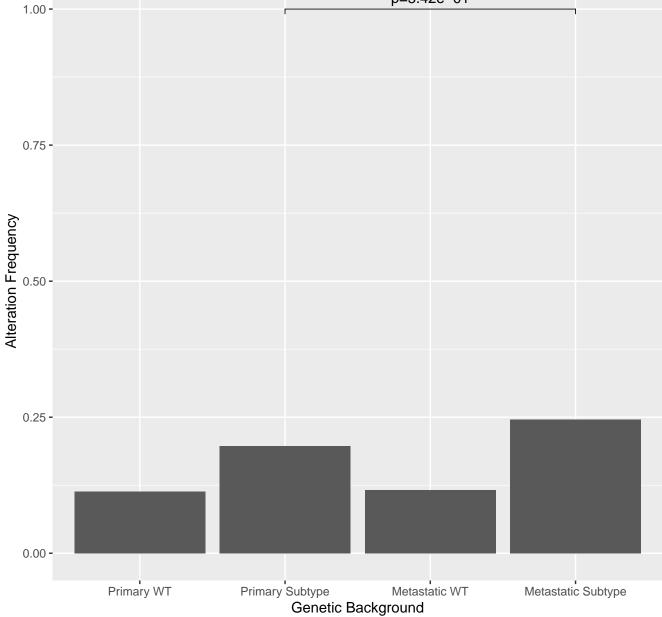
ZNF747 LOF Alterations



RNF5 LOF Alterations p=5.75e-01 1.00 -0.75 -0.50 -0.25 -0.00 -Primary Subtype Primary WT Metastatic WT Metastatic Subtype

Genetic Background

IMPACT LOF Alterations p=5.42e-01



NCR3 LOF Alterations p=5.75e-01 1.00 -0.75 -0.50 -0.25 -0.00 -Primary Subtype Primary WT Metastatic WT Metastatic Subtype Genetic Background

STX4 LOF Alterations p=5.95e-01 1.00 -0.75 -0.50 -0.25 -0.00 -

Primary Subtype

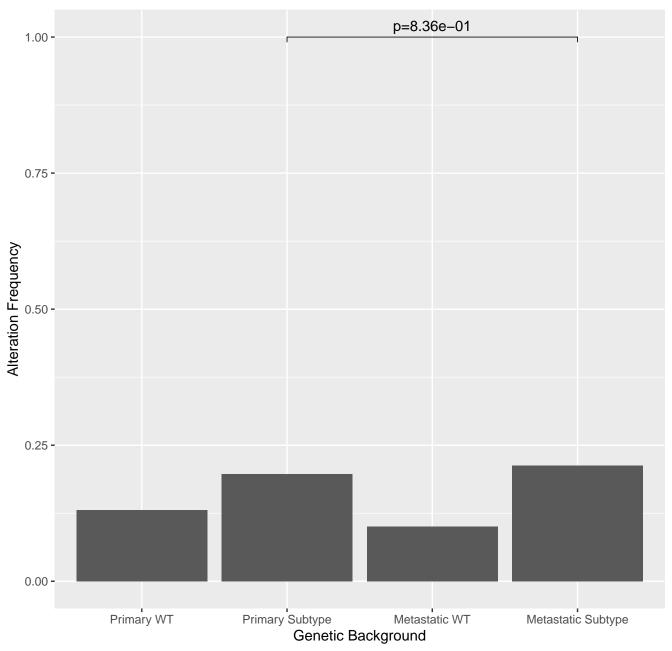
Genetic Background

Metastatic WT

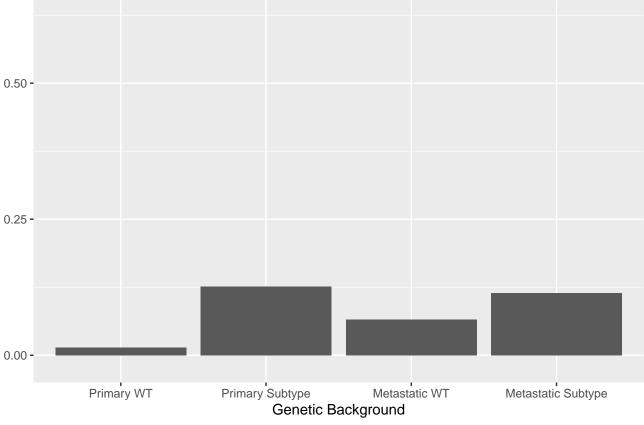
Primary WT

Metastatic Subtype

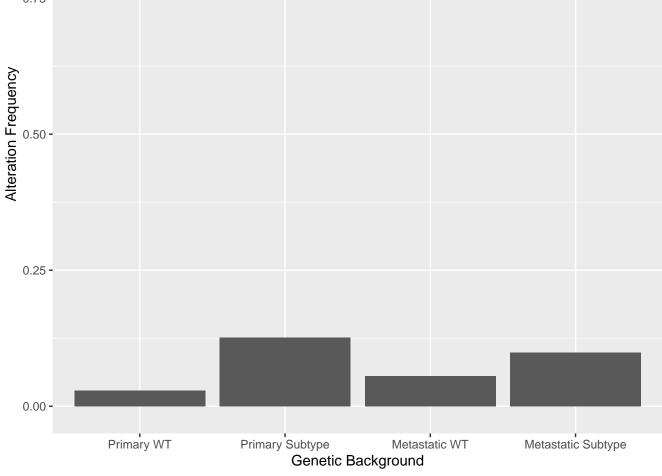
ZNF521 LOF Alterations



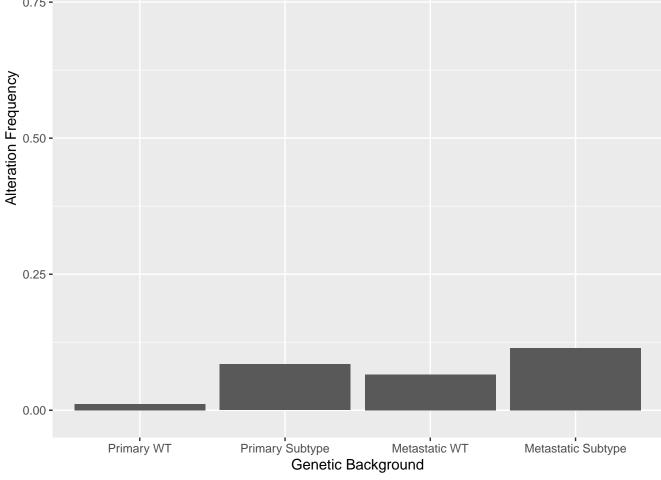
PRRG4 LOF Alterations p=1.00e+00 1.00 -0.75 -



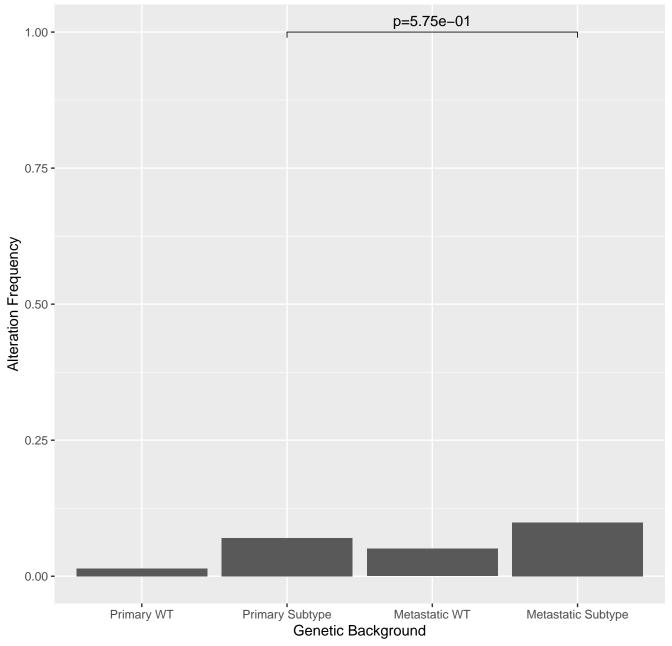
PYCARD LOF Alterations p=7.96e-01 1.00 -0.75 -



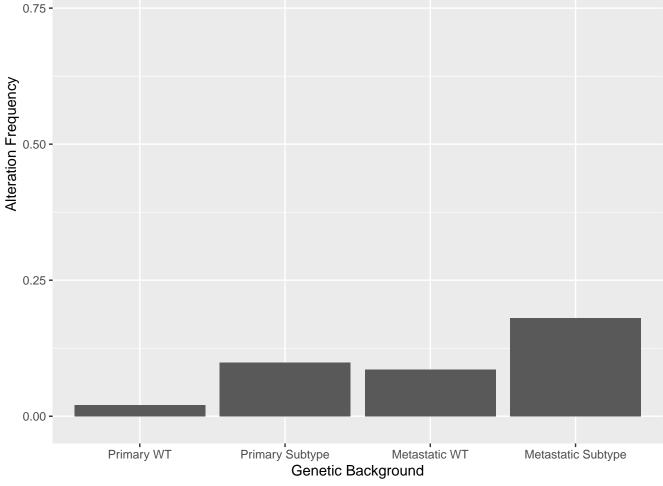
POLR1C LOF Alterations p=5.93e-01 1.00 -0.75 -



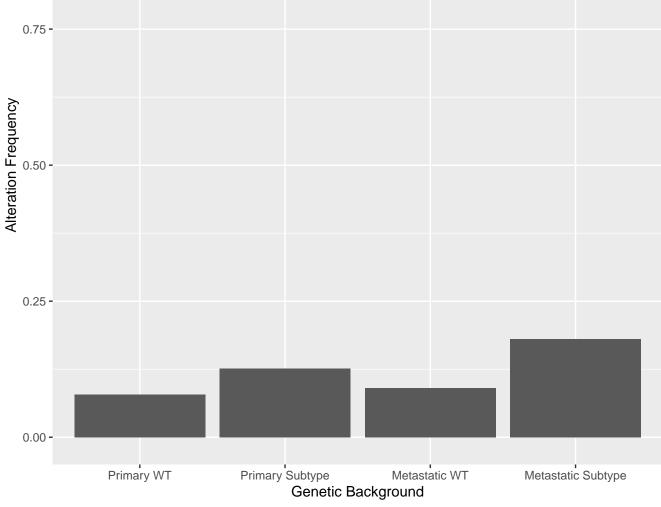
EGFL8 LOF Alterations



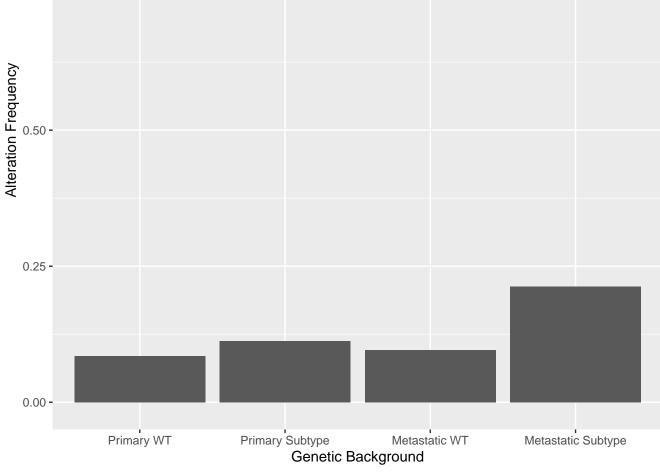
FGF1 LOF Alterations p=2.27e-01 1.00 -



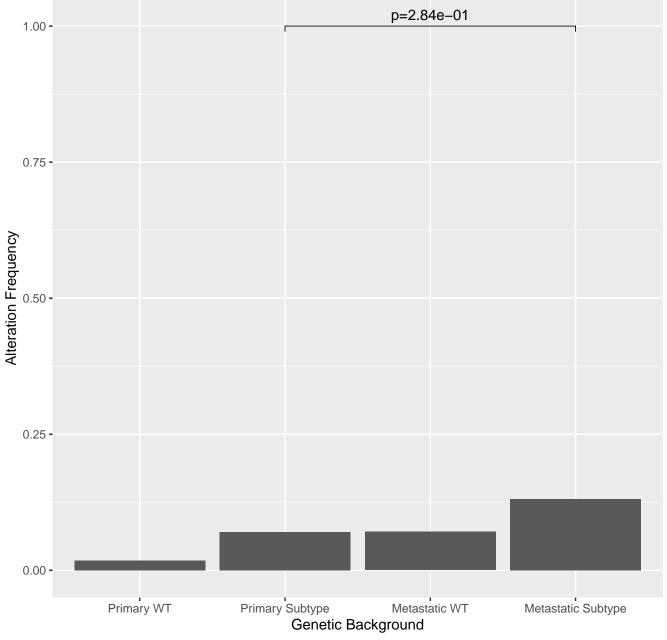
RALBP1 LOF Alterations p=4.85e-01 1.00 -



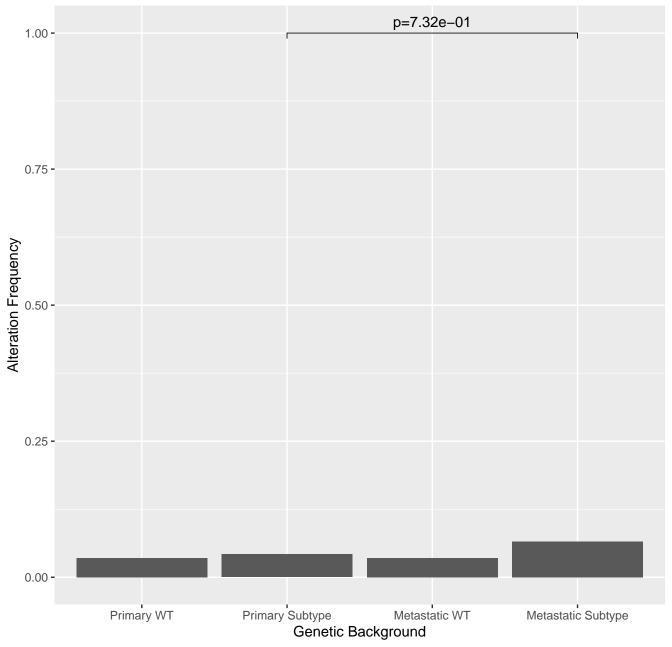
IMPA2 LOF Alterations p=1.68e-01 1.00 -0.75 -



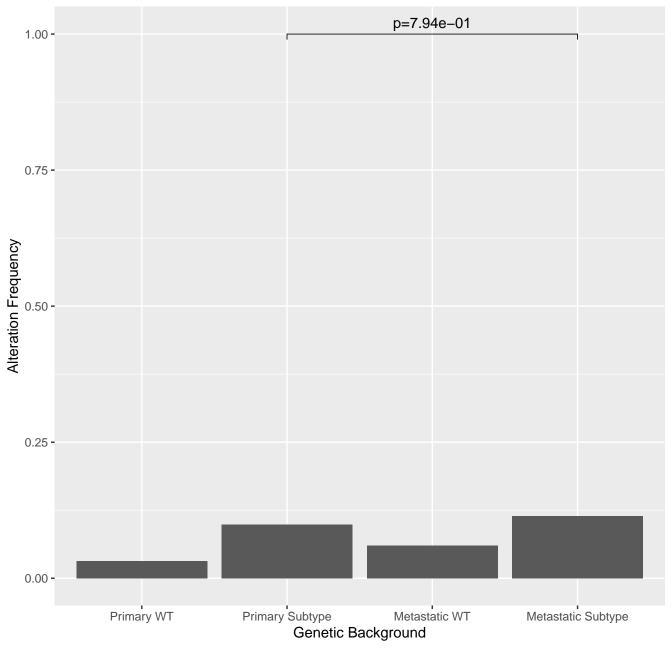
CCDC59 LOF Alterations



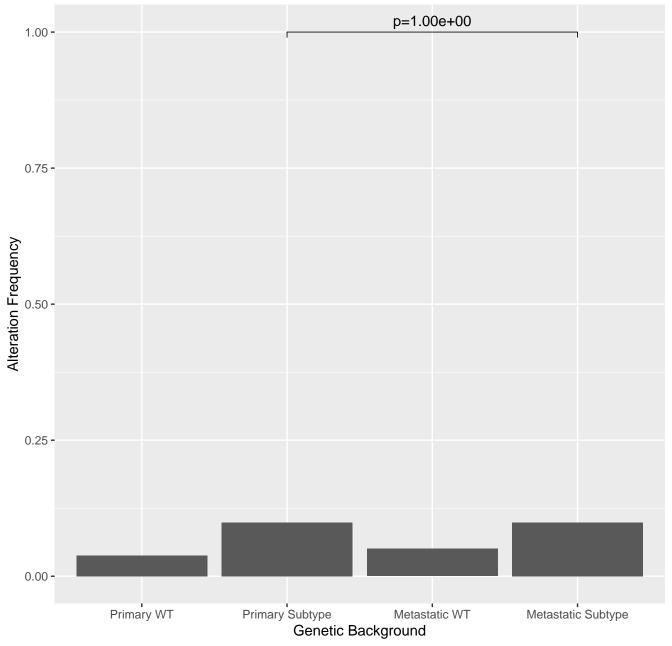
FAM110B LOF Alterations



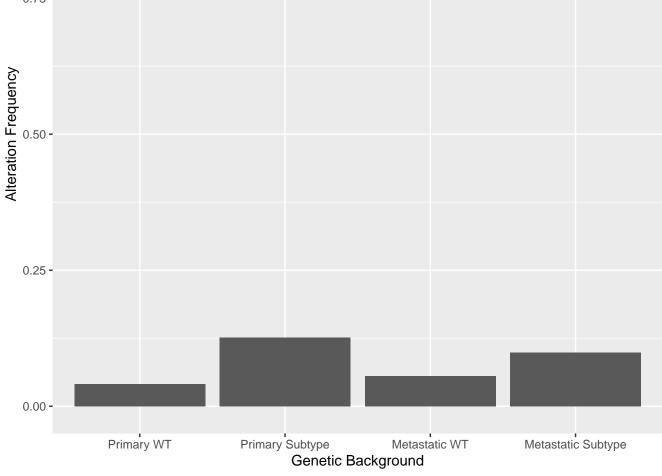
BCL2L15 LOF Alterations



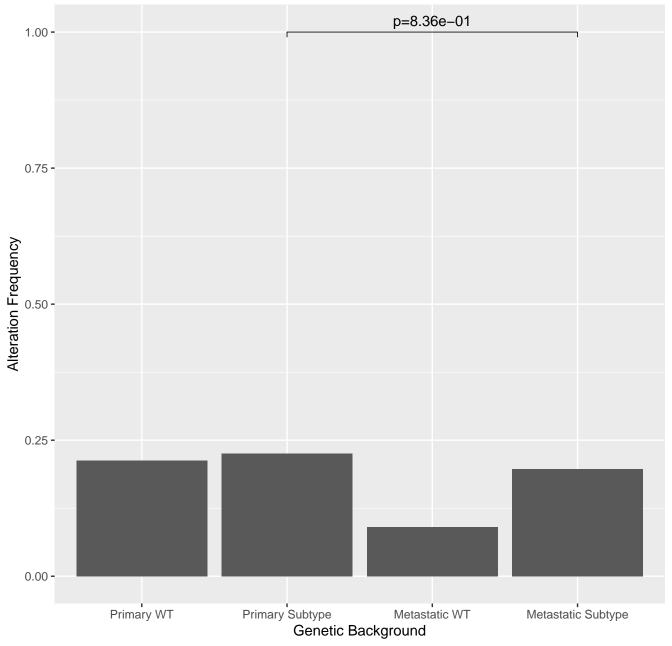
C16orf62 LOF Alterations



RNF40 LOF Alterations p=7.96e-01 1.00 -0.75 -



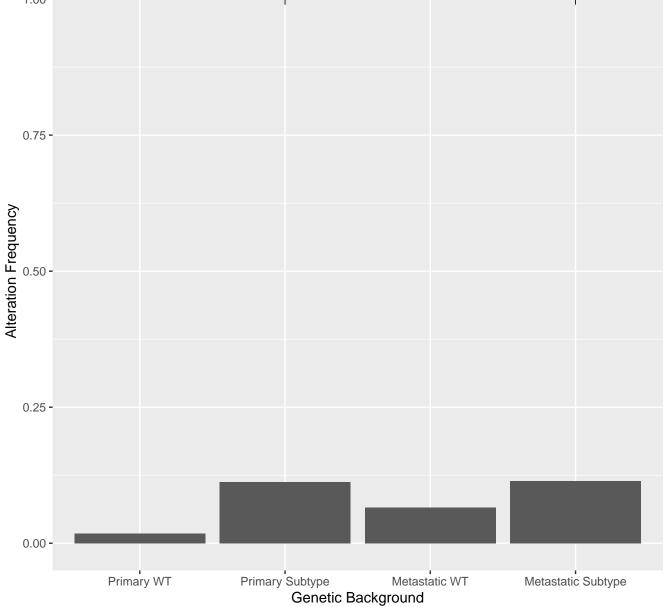
CHRNA6 LOF Alterations



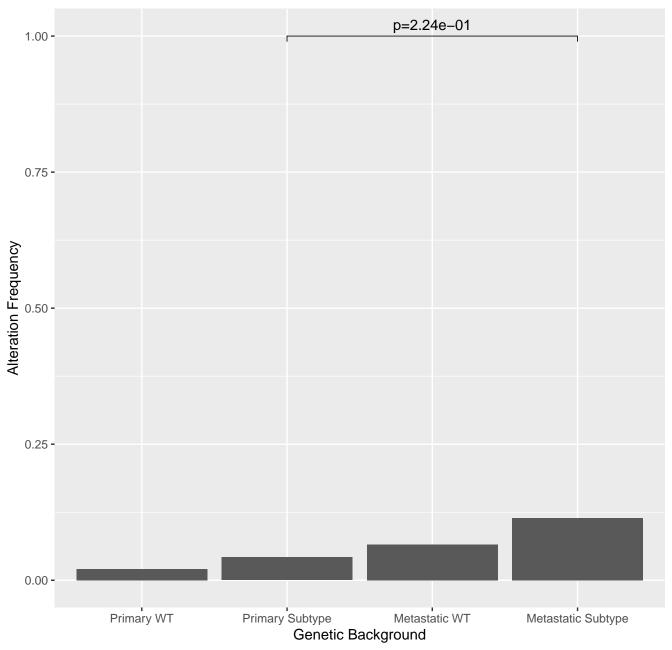
PCDHGA8 LOF Alterations p=2.09e-01 1.00 -0.75 -0.50 -0.25 -0.00 -Primary Subtype Primary WT Metastatic WT Metastatic Subtype

Genetic Background

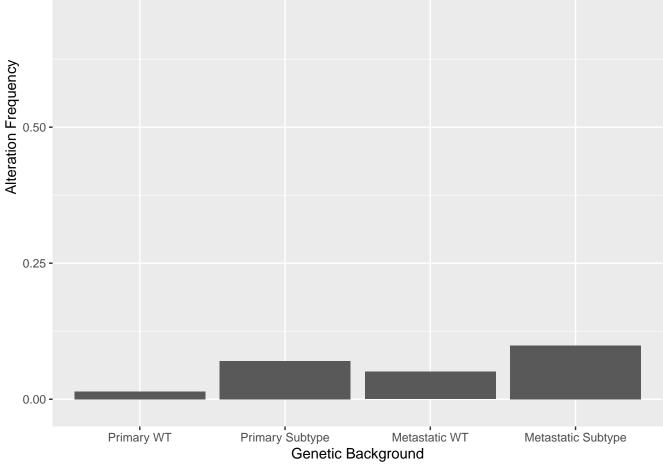
OR4A47 LOF Alterations p=1.00e+00 1.00 -



TMEM141 LOF Alterations



FKBPL LOF Alterations p=5.75e-01 1.00 -0.75 -



PIGR LOF Alterations p=1.00e+00 1.00 -0.75 -0.50 -0.25 -0.00 -

Metastatic WT

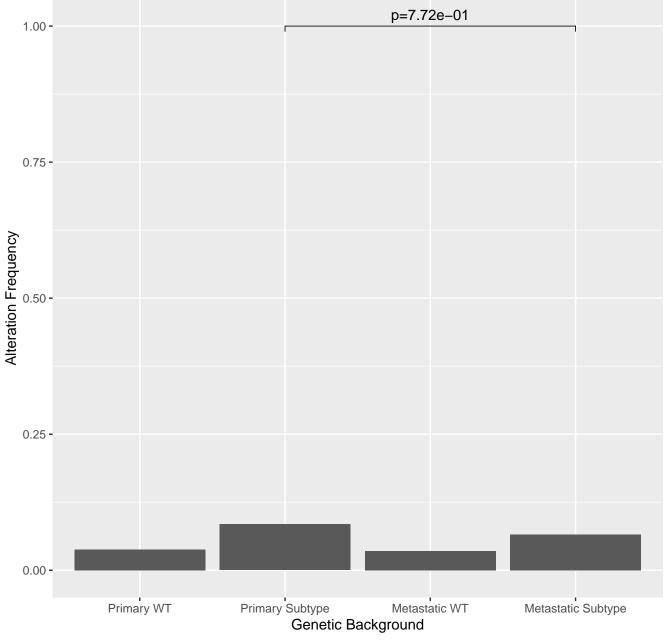
Metastatic Subtype

Primary Subtype

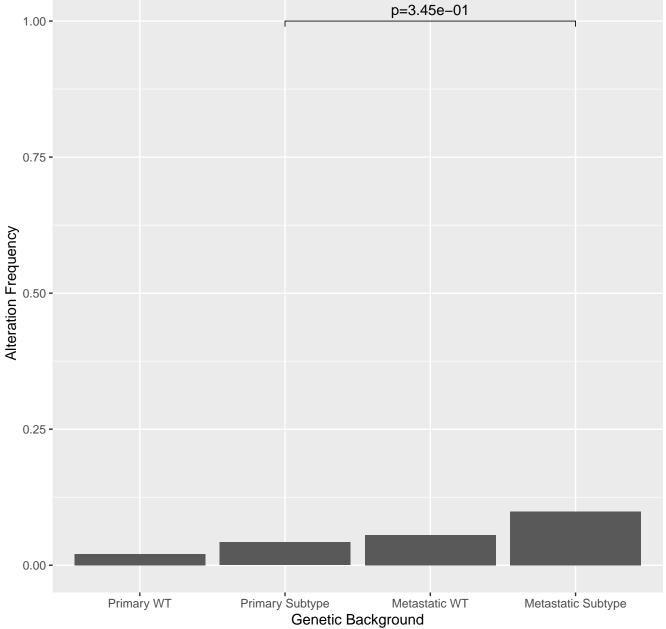
Genetic Background

Primary WT

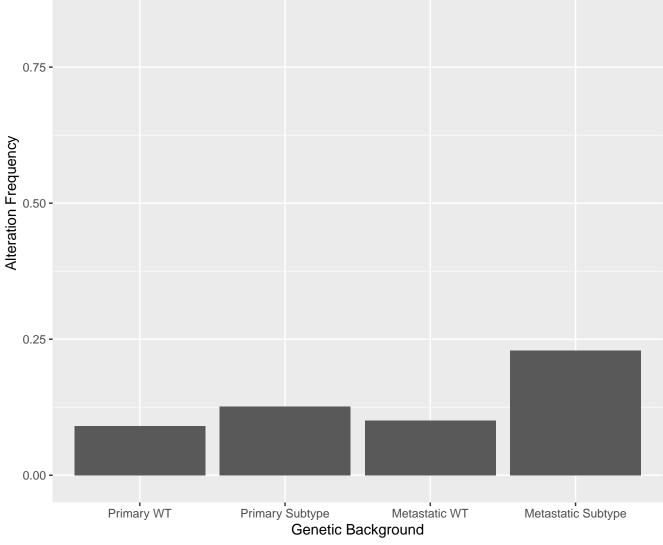
PDXDC1 LOF Alterations



LCNL1 LOF Alterations



CXCL12 LOF Alterations p=1.82e-01 1.00 -



MLX LOF Alterations p=1.00e+00 1.00 -0.75 -0.50 -0.25 -0.00 -Primary Subtype Metastatic Subtype Primary WT Metastatic WT

Genetic Background

BYSL LOF Alterations p=2.84e-01 1.00 -0.75 -0.50 -0.25 -0.00 -

Primary Subtype

Genetic Background

Primary WT

Metastatic WT

Metastatic Subtype

NFYA LOF Alterations p=2.84e-01 1.00 -0.75 -Alteration Frequency 0.50 -0.25 -0.00 -Primary Subtype Metastatic WT Primary WT Metastatic Subtype Genetic Background

RBP3 LOF Alterations p=2.73e-01 1.00 -0.75 -0.50 -0.25 -0.00 -Primary Subtype Primary WT Metastatic WT Metastatic Subtype

Genetic Background

NTAN1 LOF Alterations p=1.00e+00 1.00 -0.75 -0.50 -0.25 -0.00 -

Primary Subtype

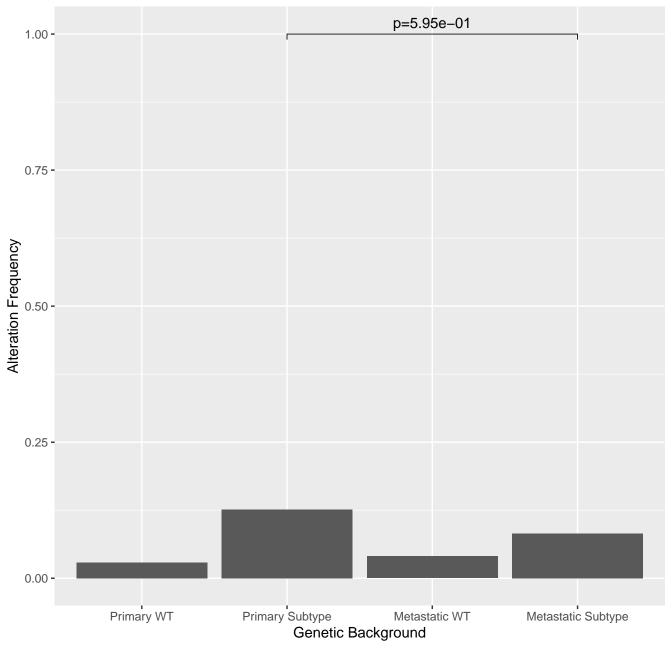
Genetic Background

Metastatic WT

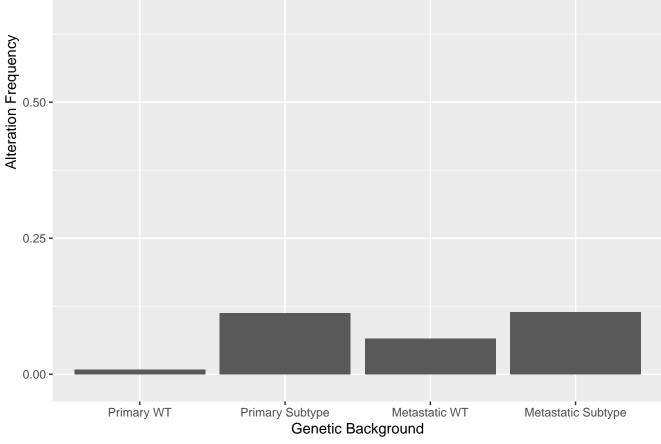
Primary WT

Metastatic Subtype

C16orf58 LOF Alterations



MPPED2 LOF Alterations p=1.00e+00 1.00 -0.75 -



HIPK3 LOF Alterations p=1.00e+00 1.00 -0.75 -0.50 -0.25 -0.00 -Primary Subtype Primary WT Metastatic WT Metastatic Subtype

Genetic Background

RSBN1 LOF Alterations p=6.09e-01 1.00 -0.75 -0.50 -0.25 -0.00 -

Primary Subtype

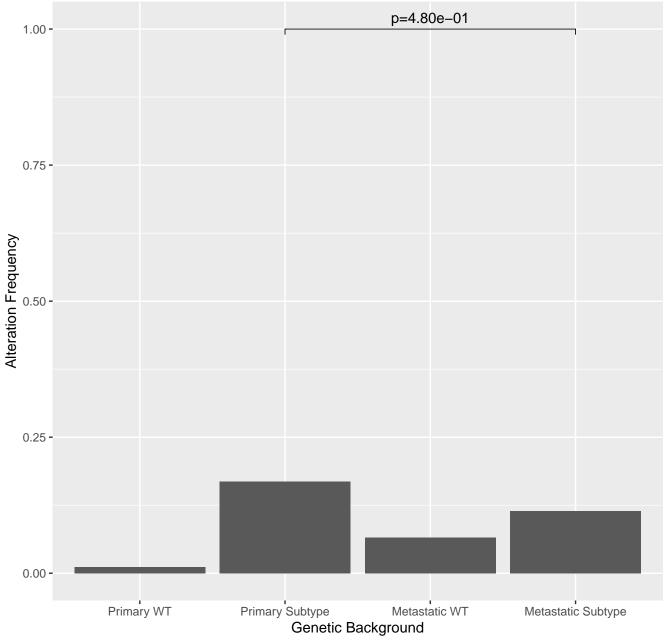
Genetic Background

Metastatic WT

Metastatic Subtype

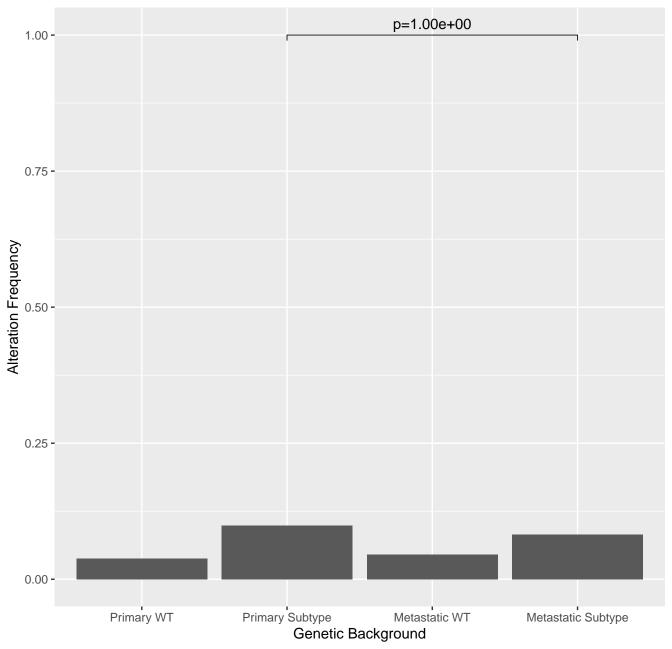
Primary WT

GLRX2 LOF Alterations

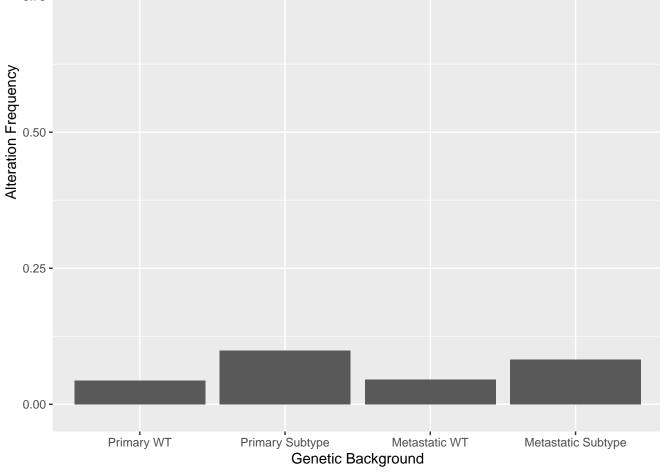


NPC1 LOF Alterations p=5.42e-01 1.00 -0.75 -Alteration Frequency 0.50 -0.25 -0.00 -Primary Subtype Metastatic WT Primary WT Metastatic Subtype Genetic Background

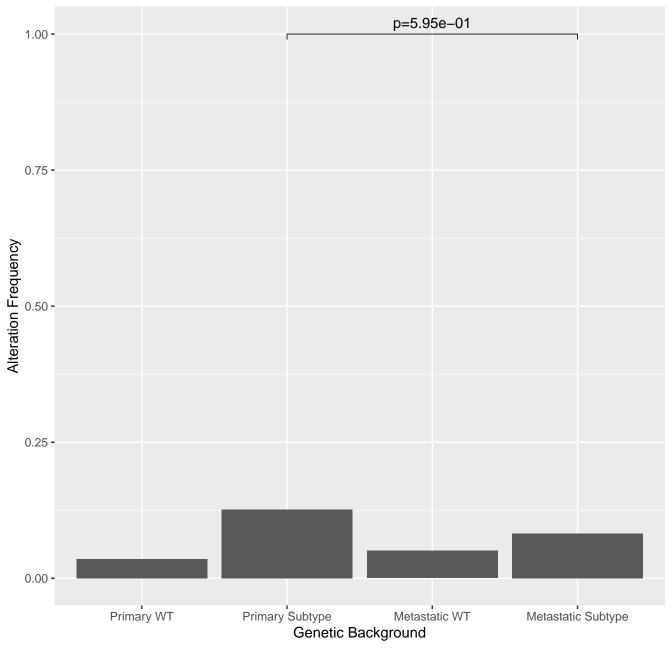
SCNN1B LOF Alterations



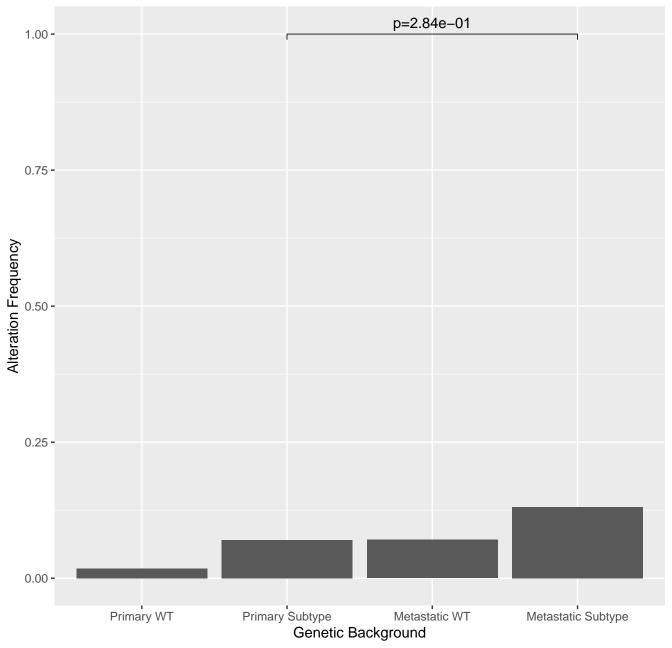
PLK1 LOF Alterations p=1.00e+00 1.00 -0.75 -



VKORC1 LOF Alterations



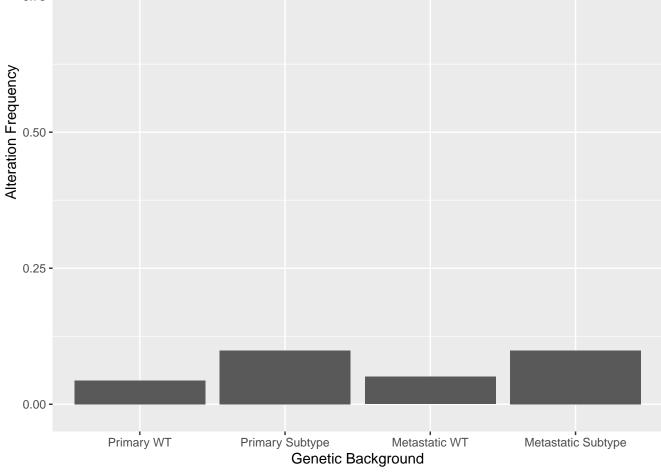
LIN7A LOF Alterations



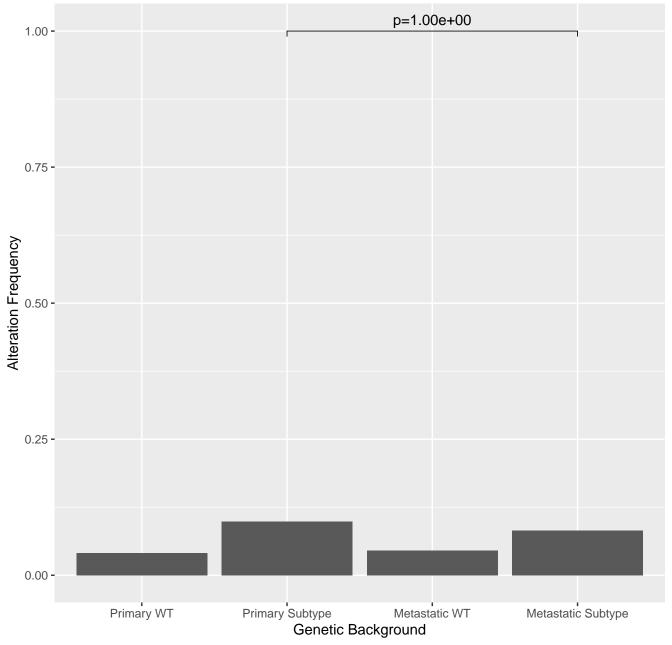
KIFC1 LOF Alterations p=4.12e-01 1.00 -0.75 -0.50 -0.25 -0.00 -Primary Subtype Primary WT Metastatic WT Metastatic Subtype

Genetic Background

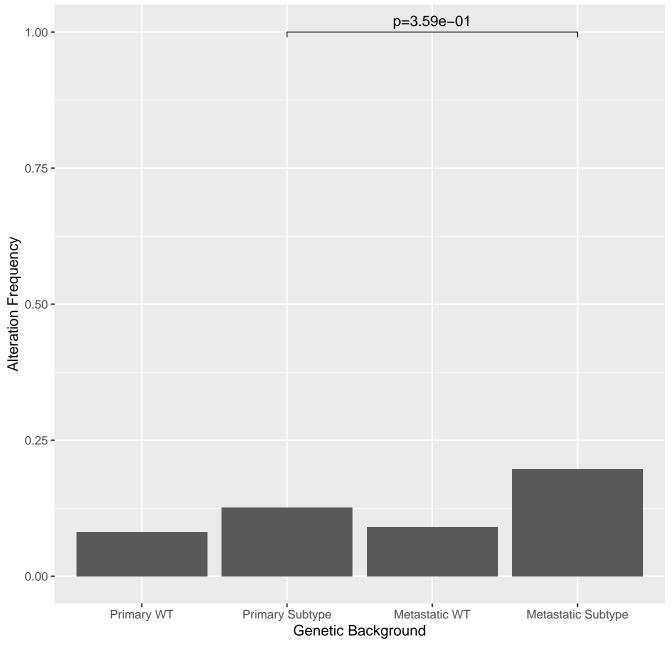
ERN2 LOF Alterations p=1.00e+00 1.00 -0.75 -



SCNN1G LOF Alterations



ARHGAP28 LOF Alterations



KCNK1 LOF Alterations p=5.23e-01 1.00 -0.75 -0.50 -0.25 -0.00 -

Primary Subtype

Genetic Background

Metastatic WT

Metastatic Subtype

Primary WT

ROCK1 LOF Alterations p=1.00e+00 1.00 -0.75 -0.50 -0.25 -0.00 -

Primary Subtype

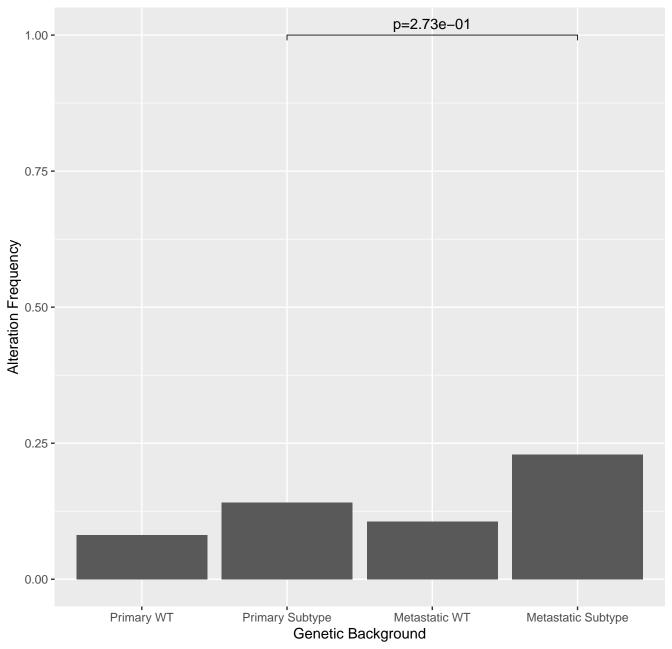
Genetic Background

Metastatic WT

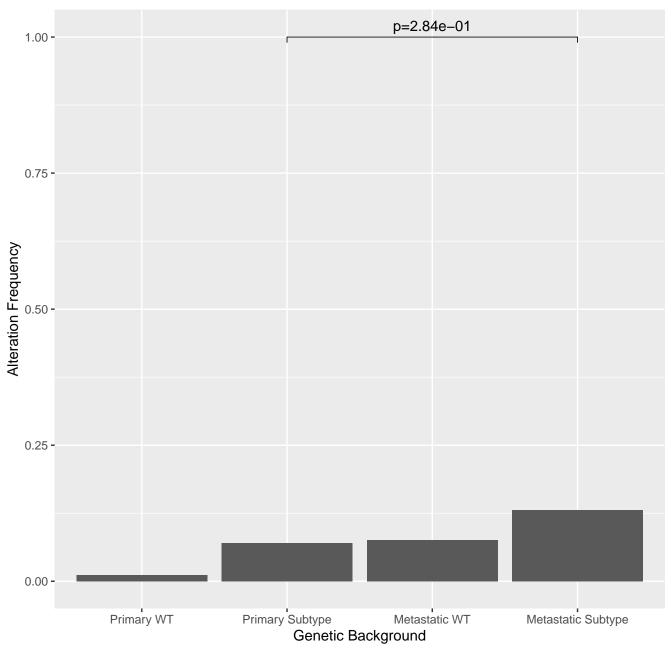
Metastatic Subtype

Primary WT

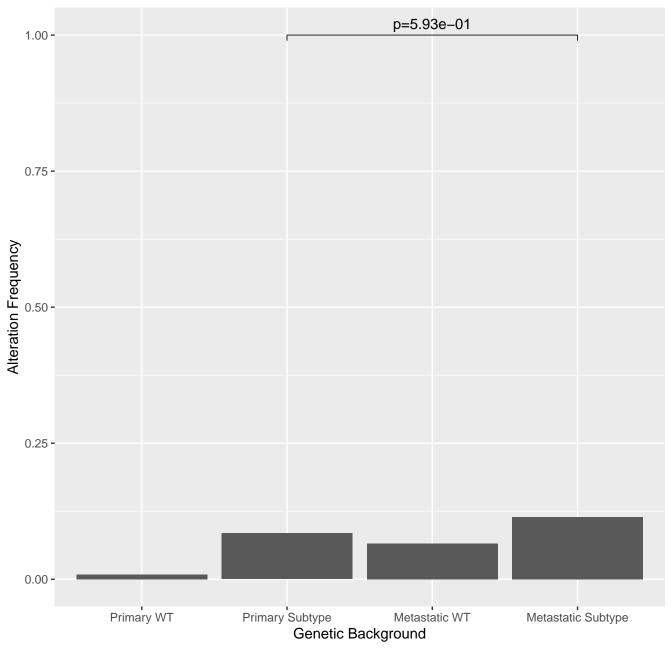
EPB41L3 LOF Alterations



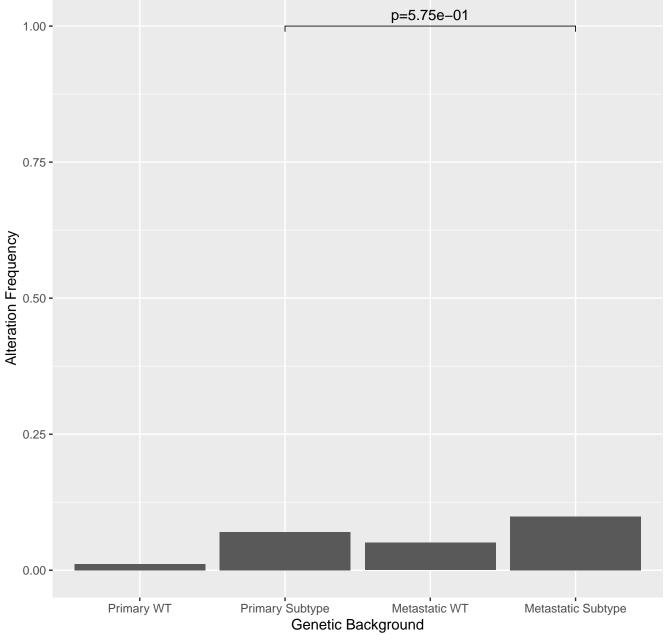
TREM1 LOF Alterations



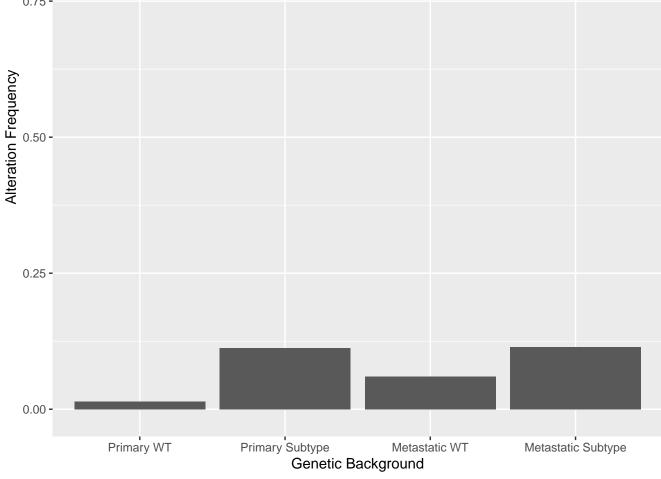
FBXO9 LOF Alterations



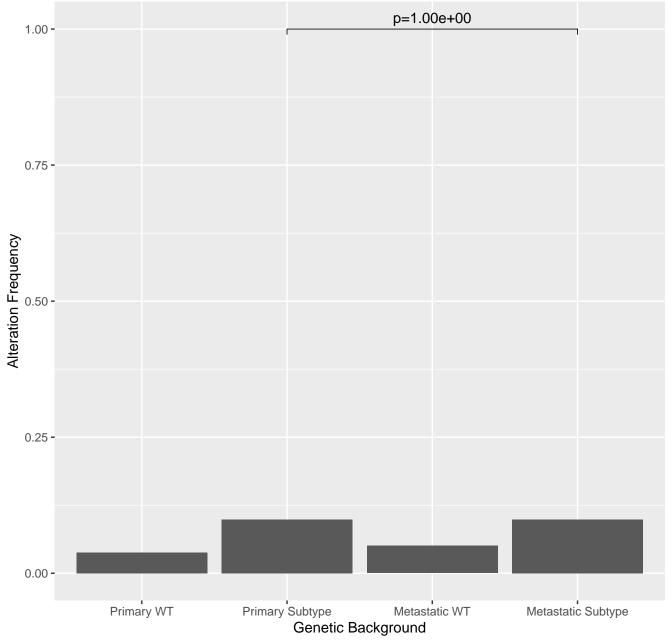
C4BPB LOF Alterations



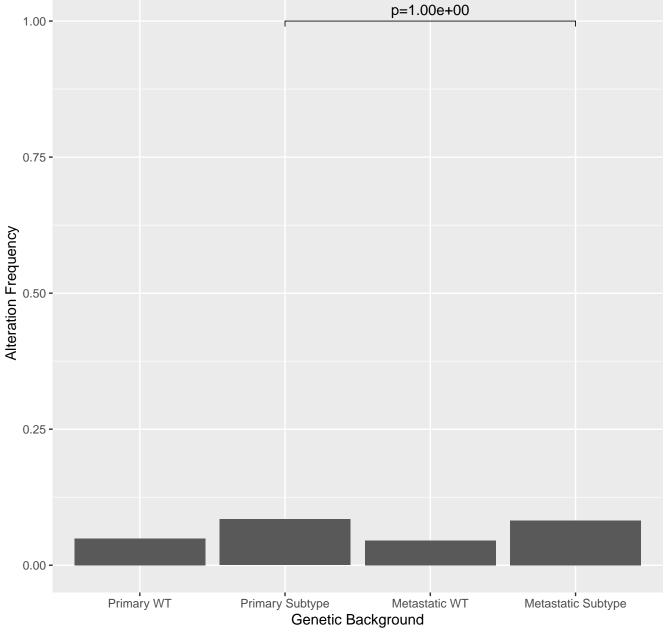
CD59 LOF Alterations p=1.00e+00 1.00 -0.75 -



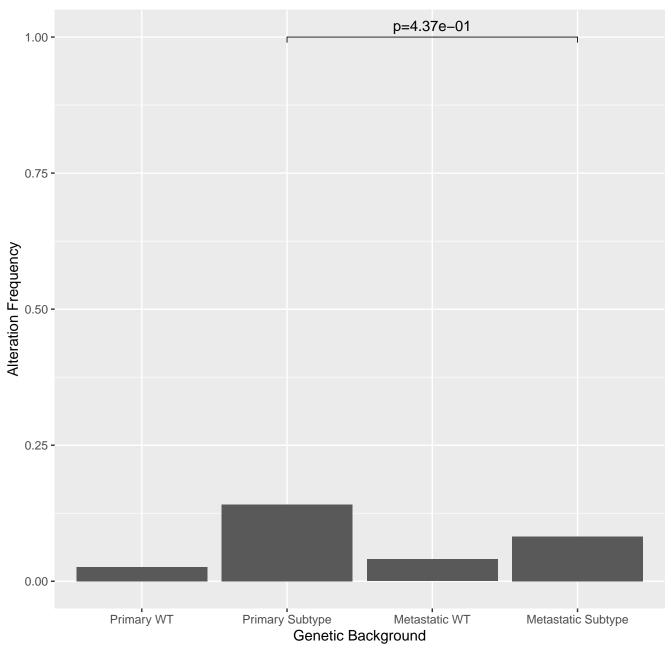
ACSM2B LOF Alterations



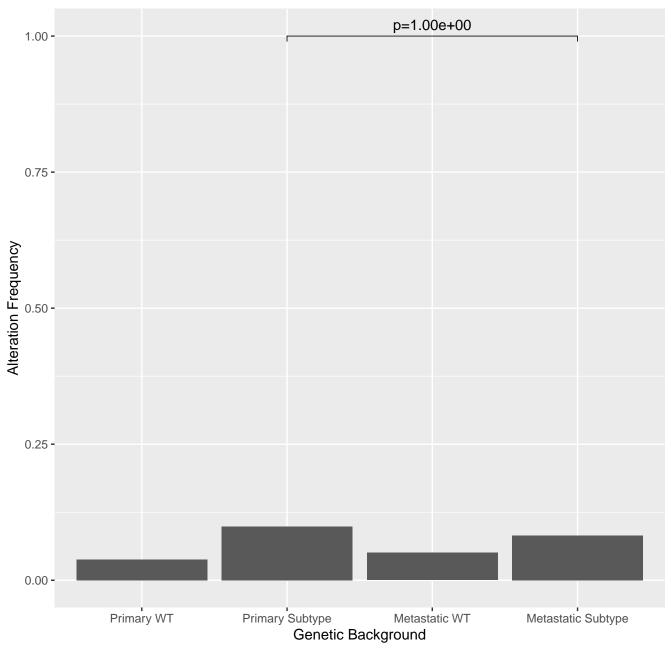
ST18 LOF Alterations



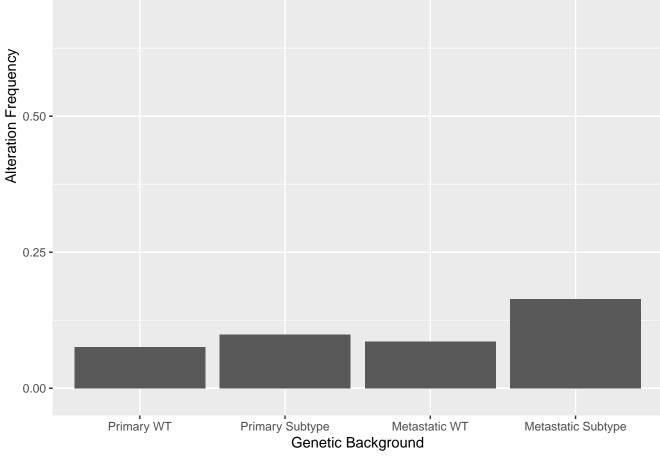
F2 LOF Alterations



TMEM159 LOF Alterations



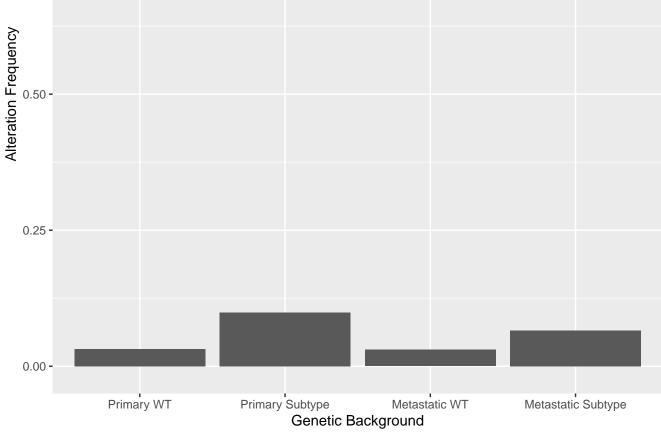
NRBF2 LOF Alterations p=3.25e-01 1.00 -0.75 -



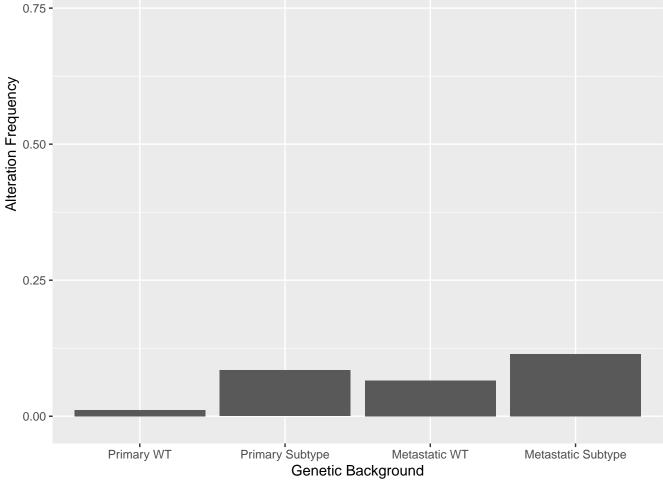
PHKG2 LOF Alterations p=7.96e-01 1.00 -0.75 -0.50 -0.25 -0.00 -Primary Subtype Primary WT Metastatic WT Metastatic Subtype

Genetic Background

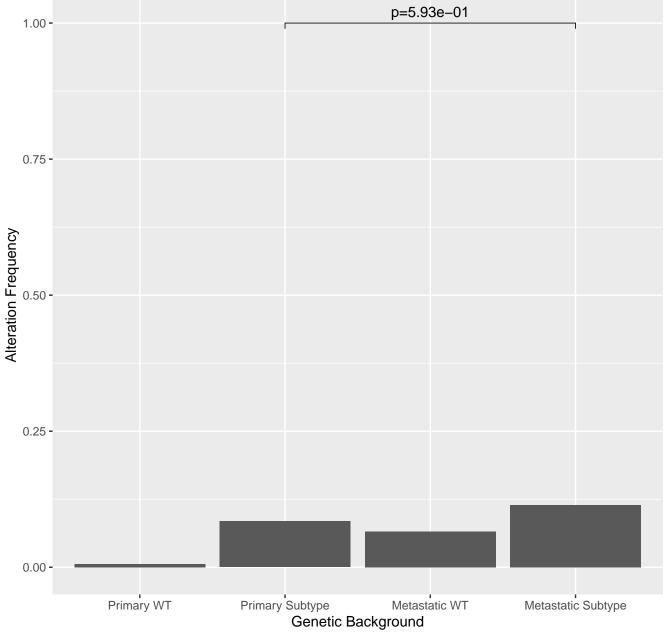
ARL6IP1 LOF Alterations p=7.71e-01 1.00 -0.75 -



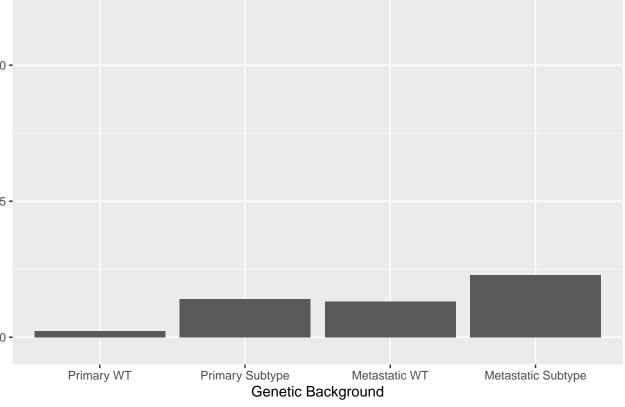
SRF LOF Alterations p=5.93e-01 1.00 -



GSTA4 LOF Alterations

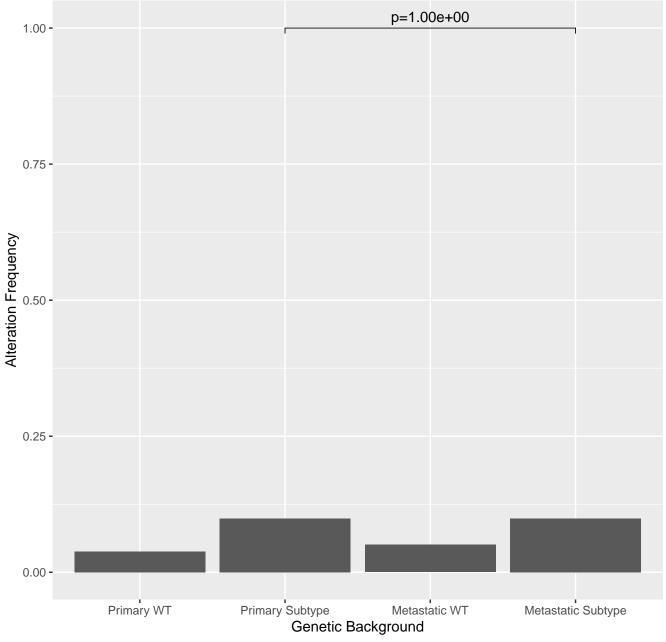


MRPS10 LOF Alterations p=4.12e-01 1.00 -0.75 -0.50 -0.25 -0.00 -



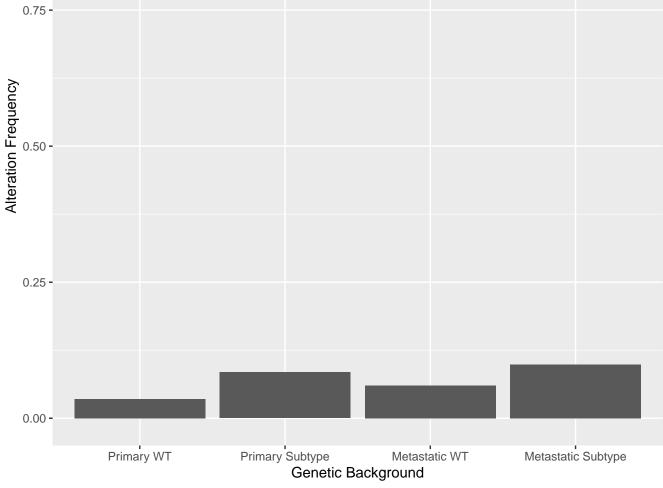
POLH LOF Alterations p=5.75e-01 1.00 -0.75 -Alteration Frequency 0.50 -0.25 -0.00 -Primary Subtype Primary WT Metastatic WT Metastatic Subtype Genetic Background

ACSM2A LOF Alterations



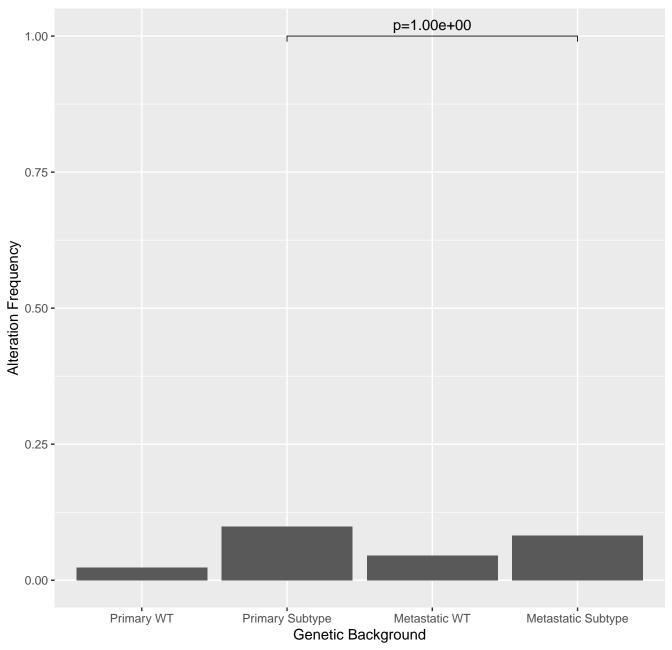
PYDC1 LOF Alterations p=7.96e-01 1.00 -0.75 -0.50 -0.25 -0.00 -Primary Subtype Primary WT Metastatic WT Metastatic Subtype Genetic Background

SIKE1 LOF Alterations p=7.85e-01 1.00 -



NFATC2IP LOF Alterations p=1.00e+00 1.00 -0.75 -0.50 -0.25 -0.00 -Primary Subtype Primary WT Metastatic WT Metastatic Subtype Genetic Background

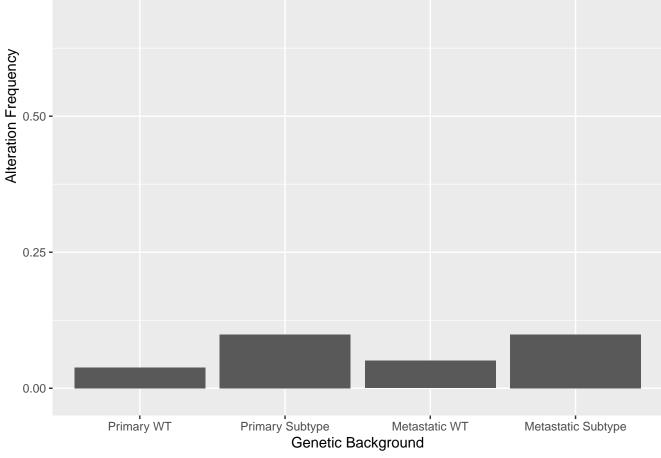
TADA1 LOF Alterations



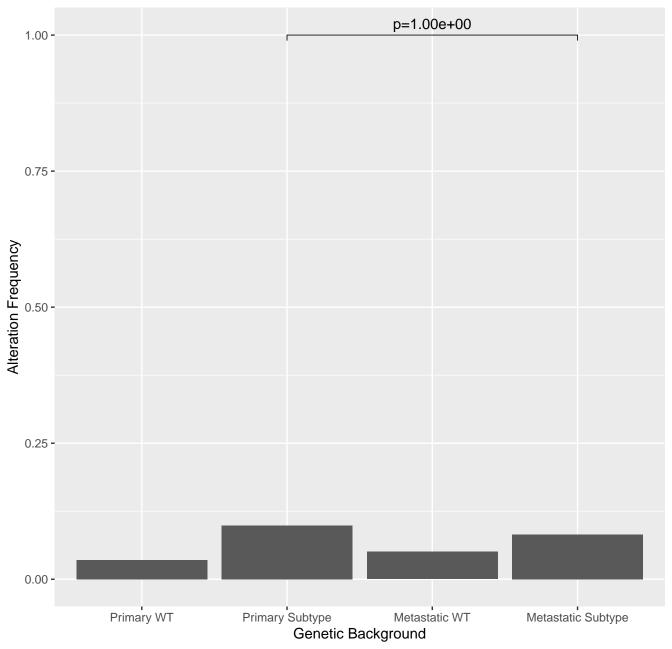
ABCC1 LOF Alterations p=7.72e-01 1.00 -0.75 -0.50 -0.25 -0.00 -Primary Subtype Primary WT Metastatic WT Metastatic Subtype

Genetic Background

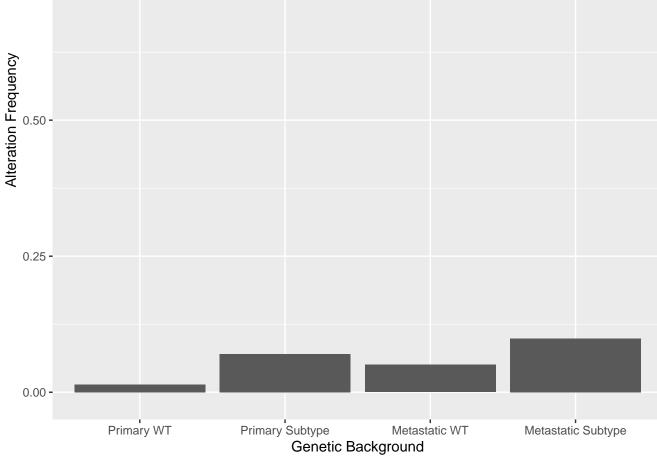
CRYM LOF Alterations p=1.00e+00 1.00 -0.75 -



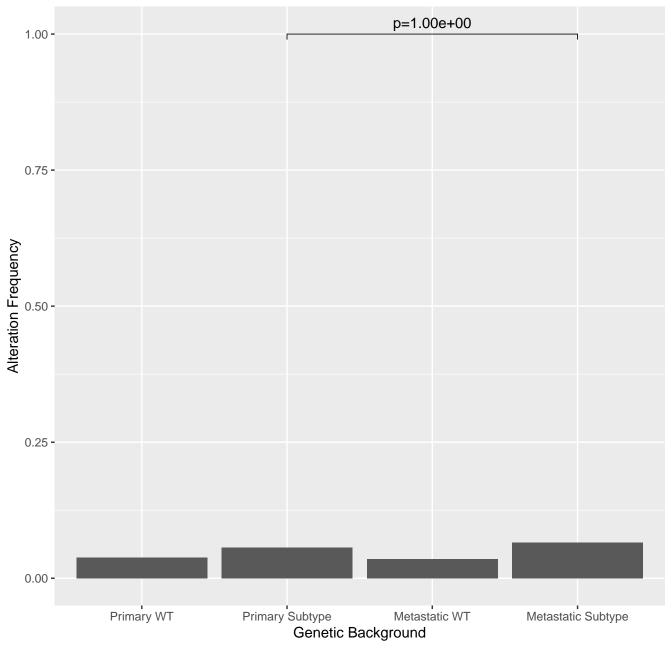
TMC7 LOF Alterations



C2 LOF Alterations p=5.75e-01 1.00 -0.75 -



LYPLA1 LOF Alterations



RGS18 LOF Alterations p=3.35e-01 1.00 -0.75 -0.50 -0.25 -0.00 -

Primary Subtype

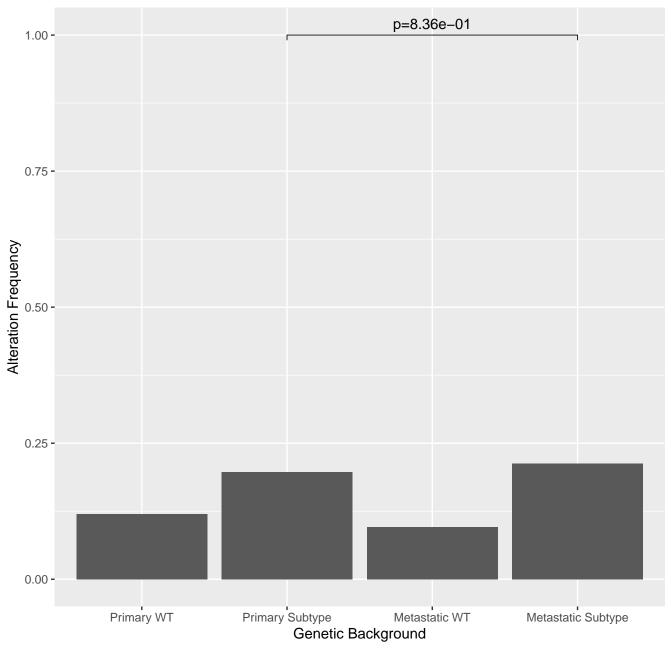
Genetic Background

Metastatic WT

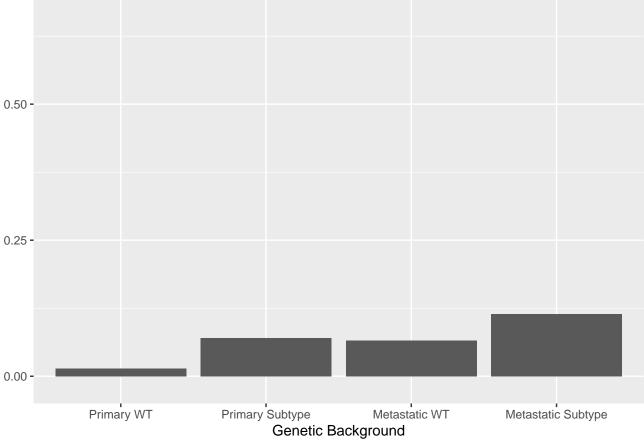
Metastatic Subtype

Primary WT

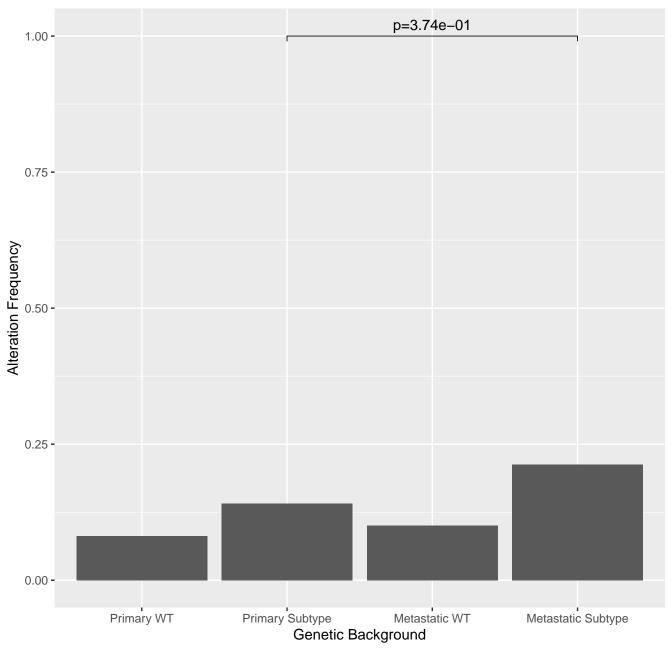
OSBPL1A LOF Alterations



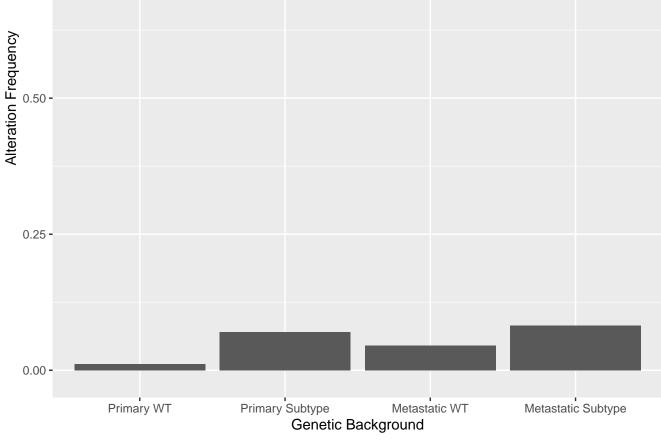
HMGA1 LOF Alterations p=4.12e-01 1.00 -0.75 -0.50 -0.25 -



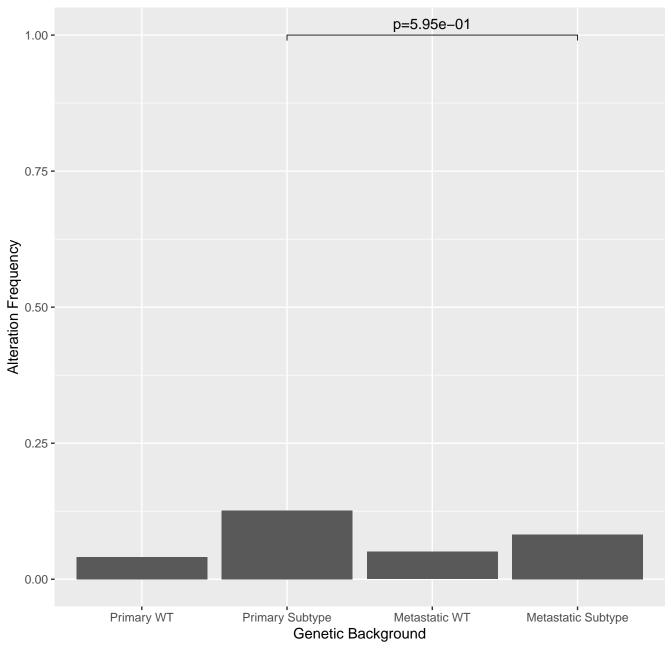
TMEM200C LOF Alterations



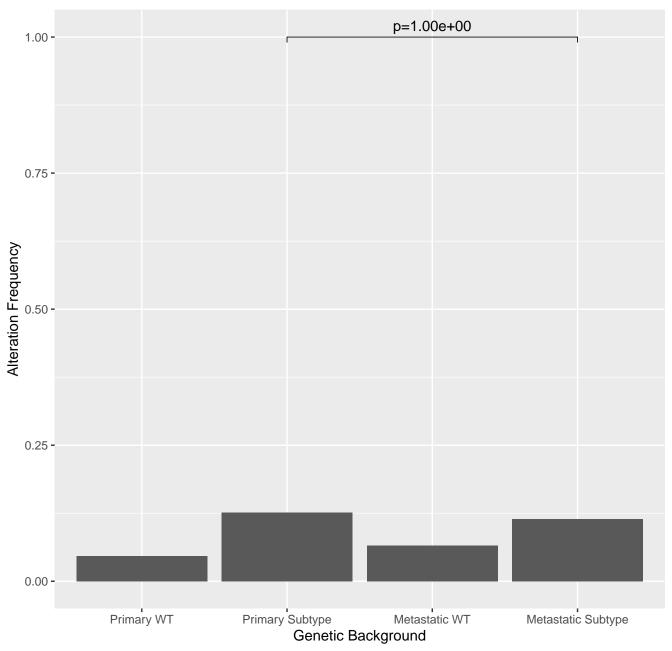
PFKFB2 LOF Alterations p=1.00e+00 1.00 -0.75 -



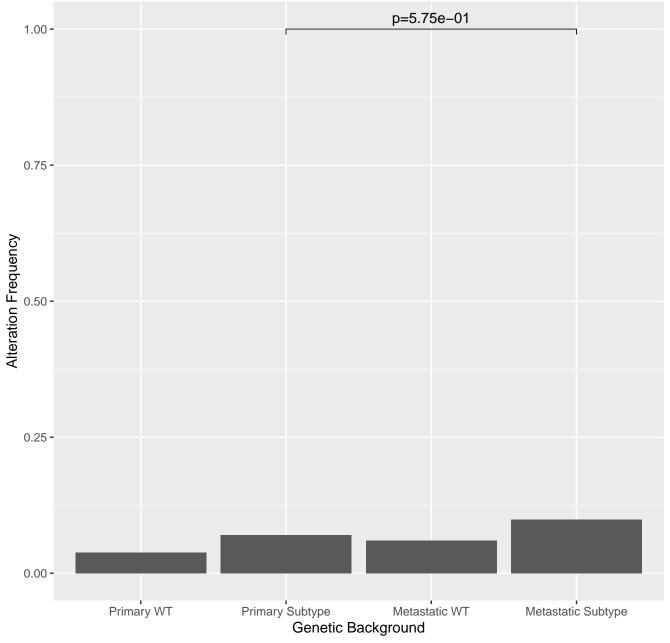
TNRC6A LOF Alterations



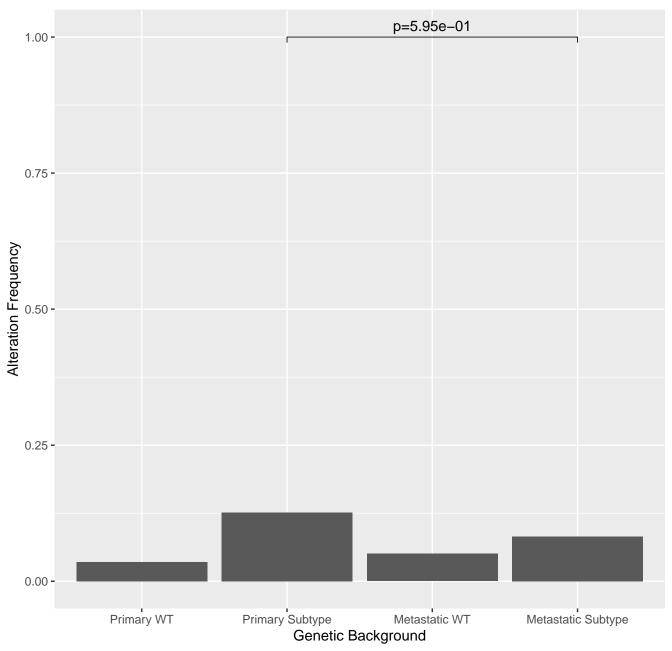
TBC1D10B LOF Alterations



VANGL1 LOF Alterations



ZNF646 LOF Alterations



NOMO3 LOF Alterations p=7.71e-01 1.00 -0.75 -0.50 -0.25 -0.00 -Primary Subtype Primary WT Metastatic WT Metastatic Subtype

Genetic Background

CUTA LOF Alterations p=4.12e-01 1.00 -0.75 -0.50 -0.25 -0.00 -

Primary Subtype

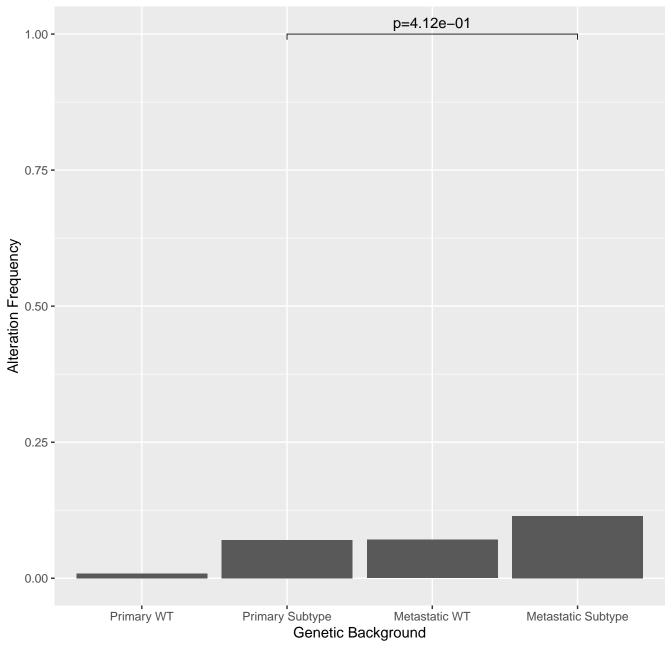
Genetic Background

Metastatic WT

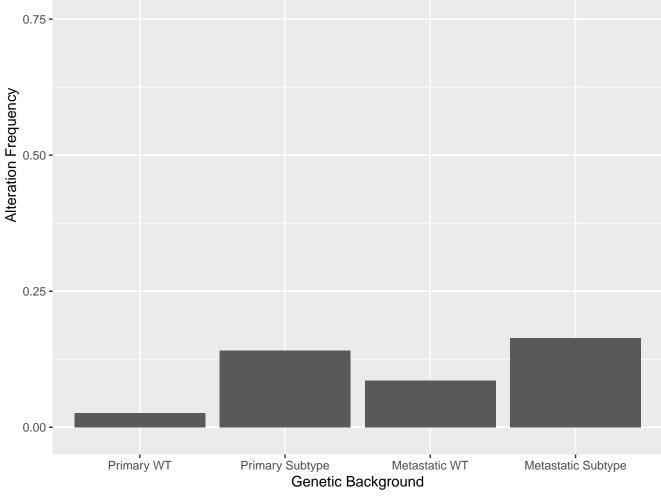
Metastatic Subtype

Primary WT

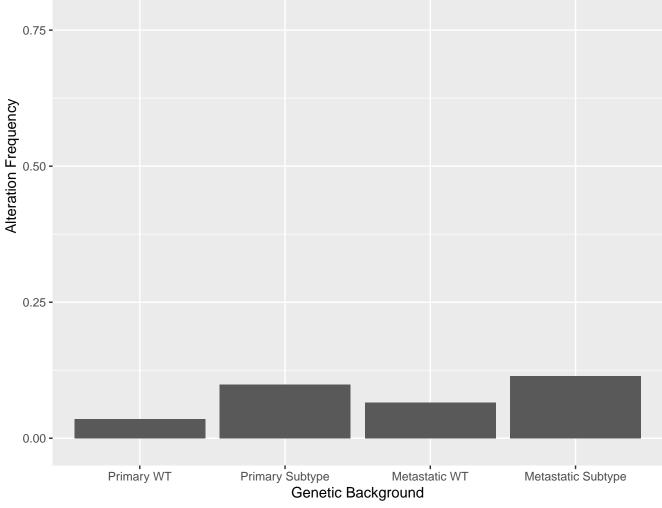
ZBTB22 LOF Alterations



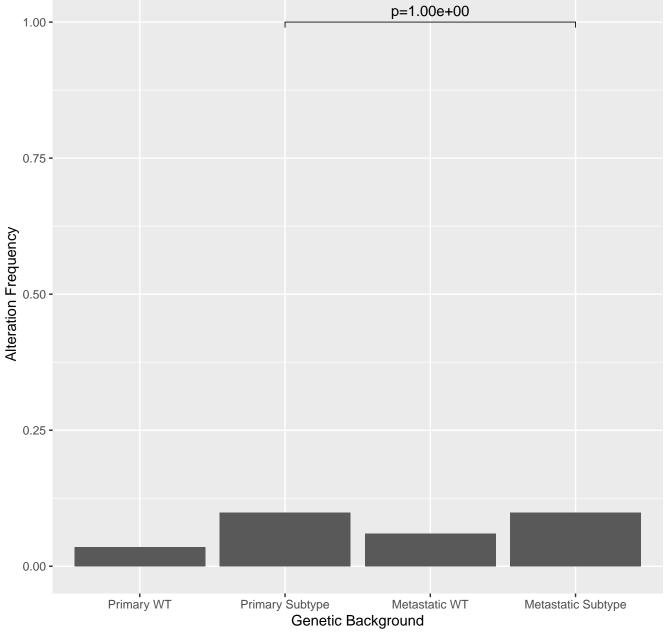
PRIM2 LOF Alterations p=8.16e-01 1.00 -



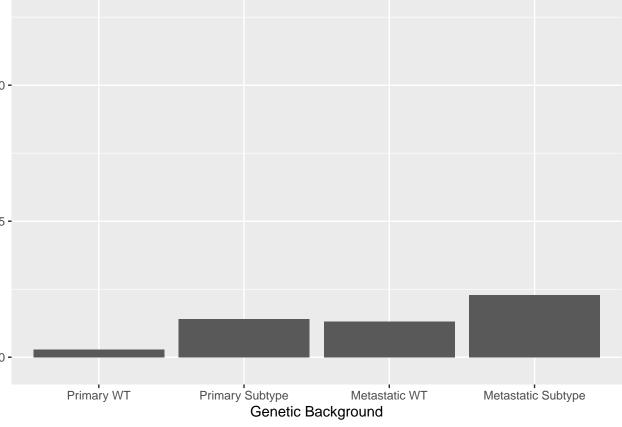
POLR3E LOF Alterations p=7.94e-01 1.00 -



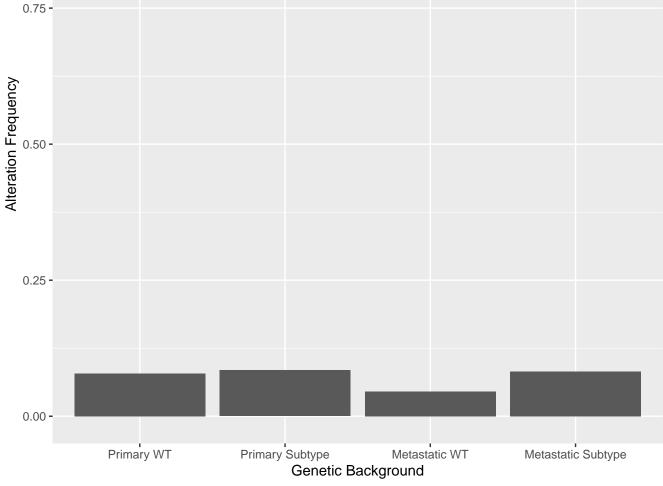
UQCRC2 LOF Alterations



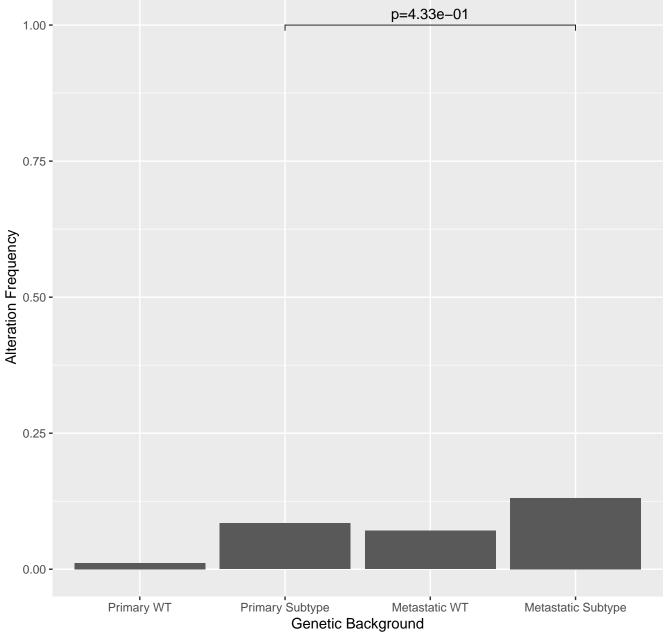
HSP90AB1 LOF Alterations p=4.12e-01 1.00 -0.75 -0.50 -0.25 -0.00 -



RUNDC1 LOF Alterations p=1.00e+00 1.00 -



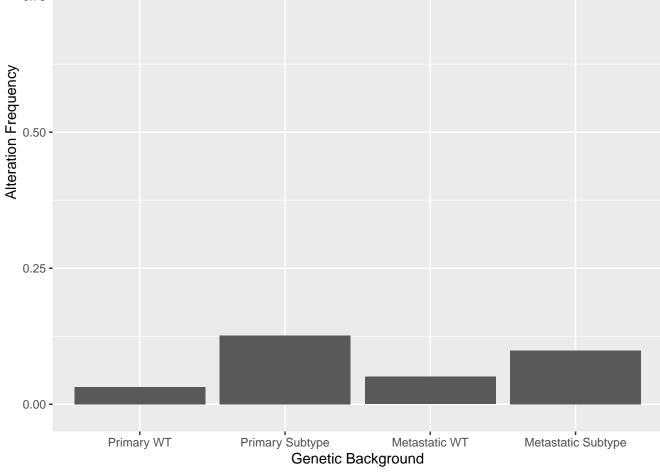
CRIP3 LOF Alterations



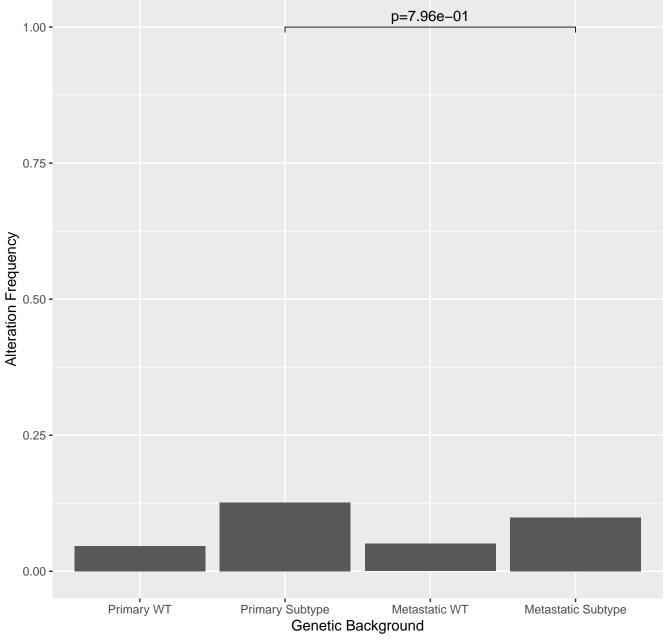
PRKDC LOF Alterations p=1.00e+00 1.00 -0.75 -0.50 -0.25 -0.00 -Primary Subtype Primary WT Metastatic WT Metastatic Subtype

Genetic Background

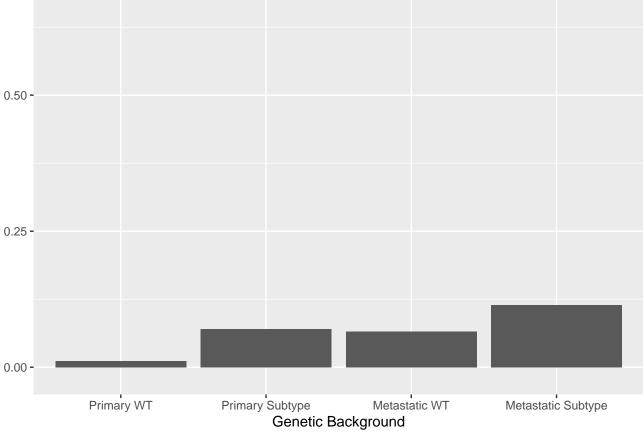
BCKDK LOF Alterations p=7.96e-01 1.00 -0.75 -



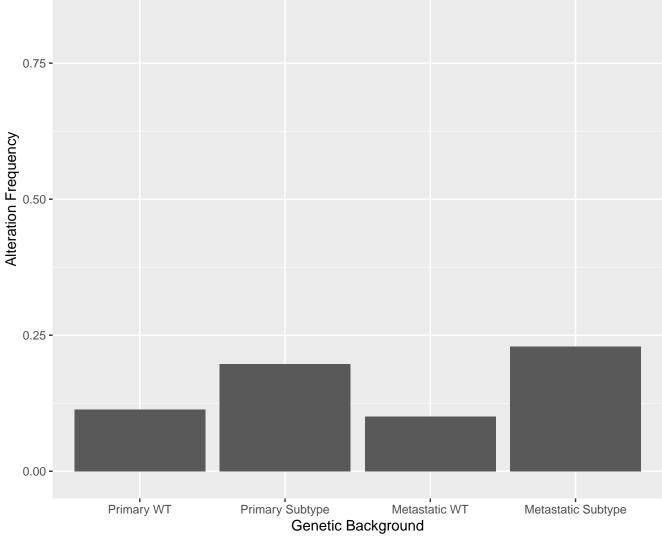
GDPD3 LOF Alterations



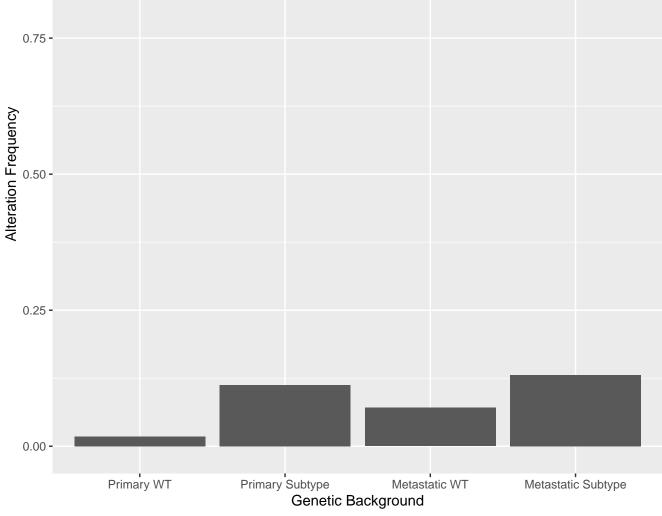
HLA-DMA LOF Alterations p=4.12e-01 1.00 -0.75 -0.50 -0.25 -



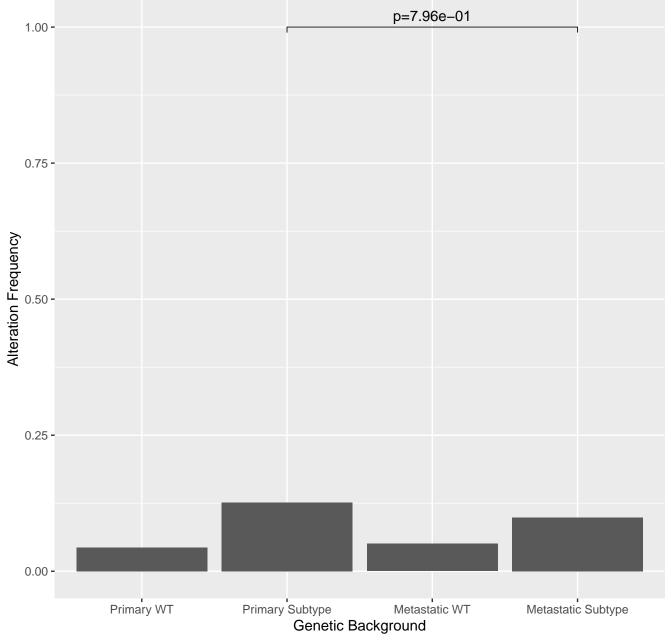
ANKRD29 LOF Alterations p=6.81e-01 1.00 -



ABTB2 LOF Alterations p=8.02e-01 1.00 -



FBRS LOF Alterations



PSMB9 LOF Alterations p=5.75e-01 1.00 -0.75 -0.50 -0.25 -0.00 -

Metastatic WT

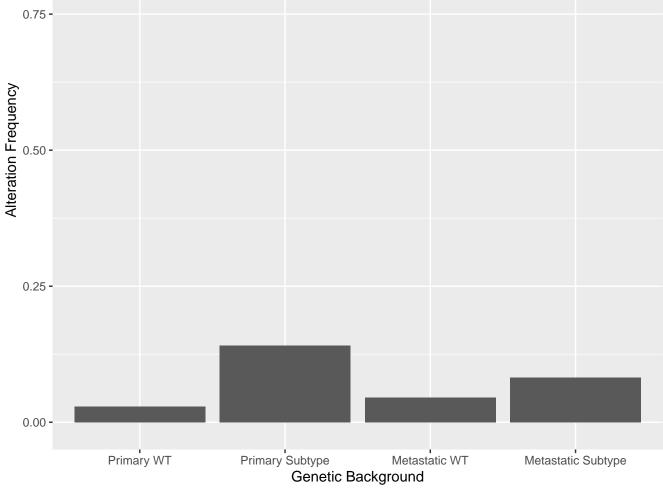
Metastatic Subtype

Primary Subtype

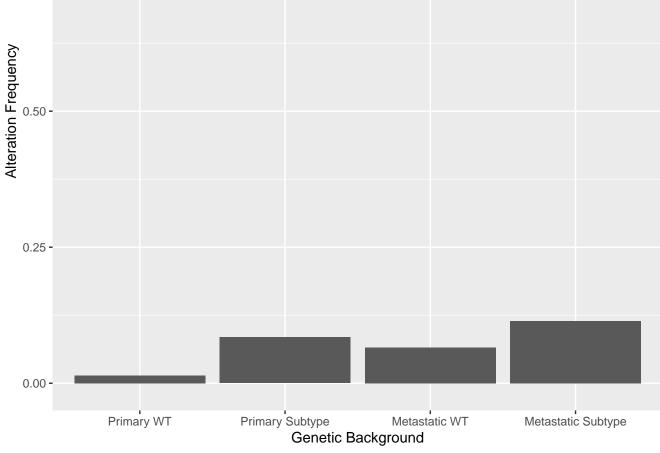
Genetic Background

Primary WT

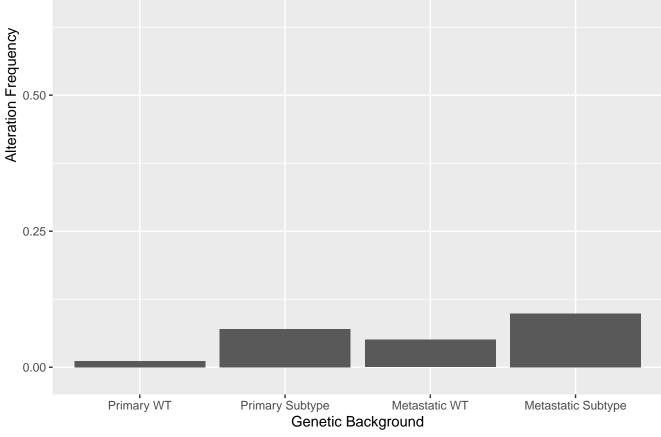
SPI1 LOF Alterations p=4.37e-01 1.00 -



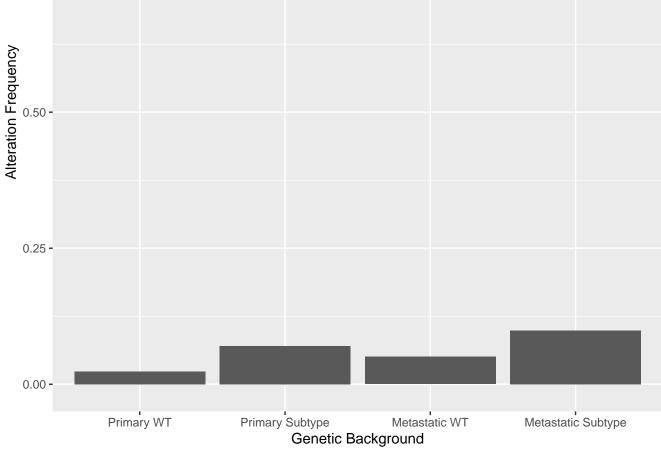
PACSIN1 LOF Alterations p=5.93e-01 1.00 -0.75 -



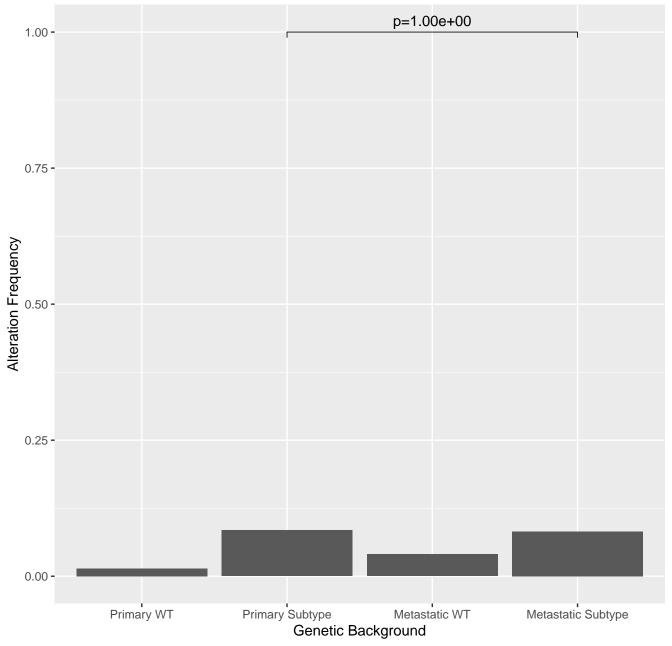
ATP6V1G2 LOF Alterations p=5.75e-01 1.00 -0.75 -



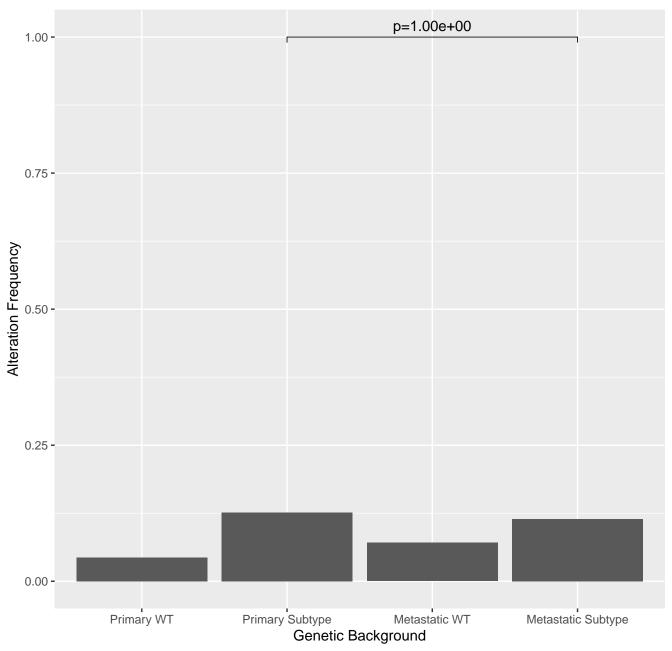
CD96 LOF Alterations p=5.75e-01 1.00 -0.75 -



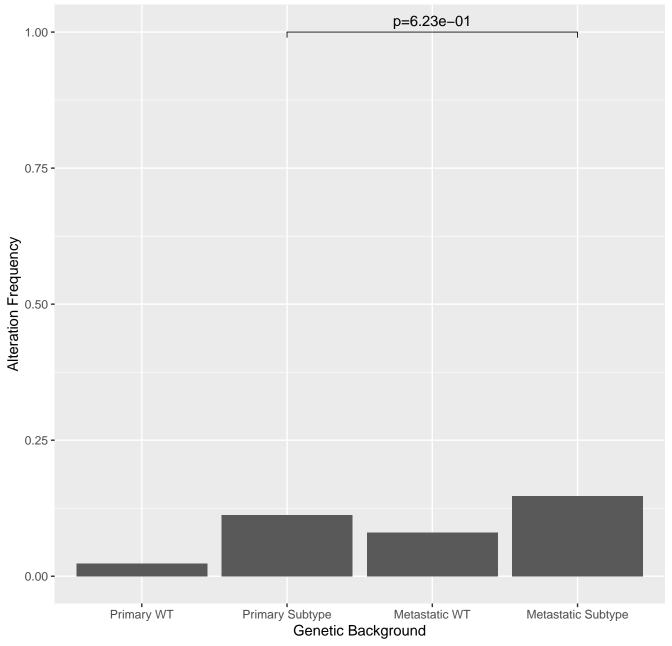
C1orf116 LOF Alterations



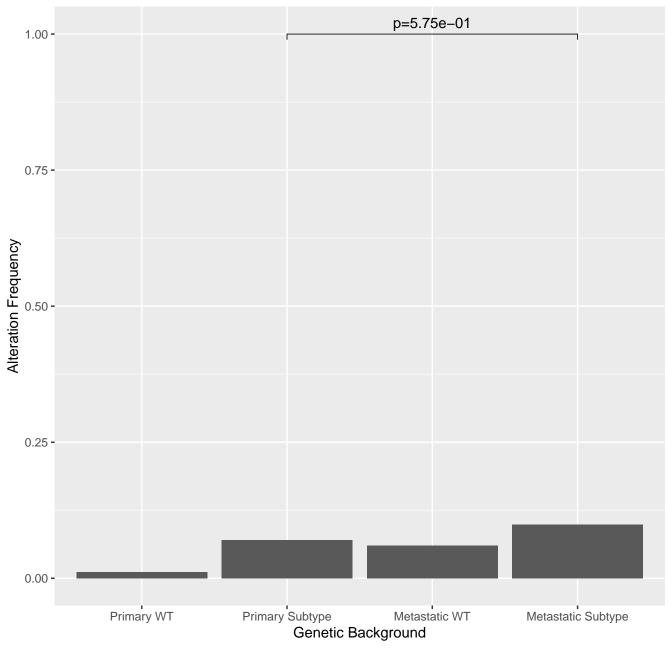
ZNF689 LOF Alterations



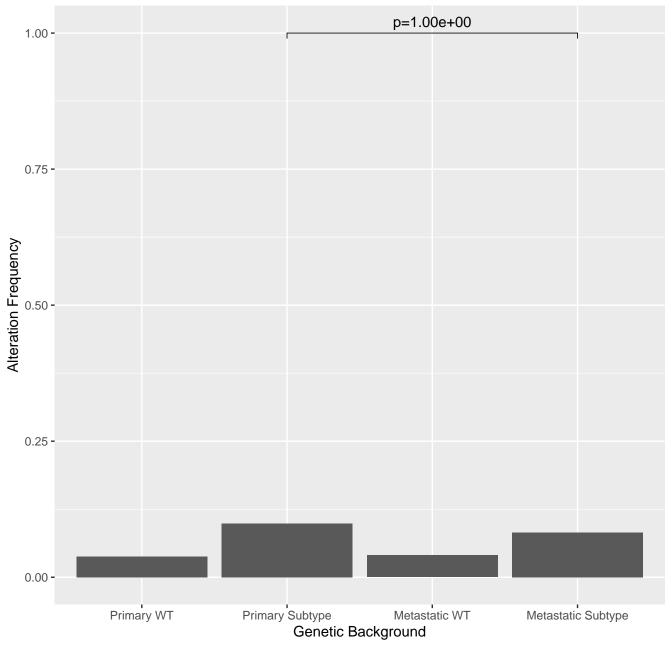
LPGAT1 LOF Alterations



TAP2 LOF Alterations



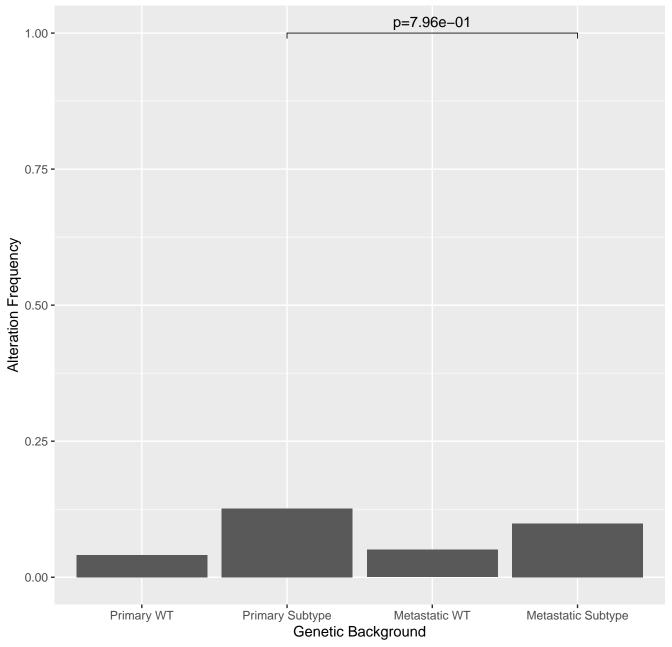
GTF3C1 LOF Alterations



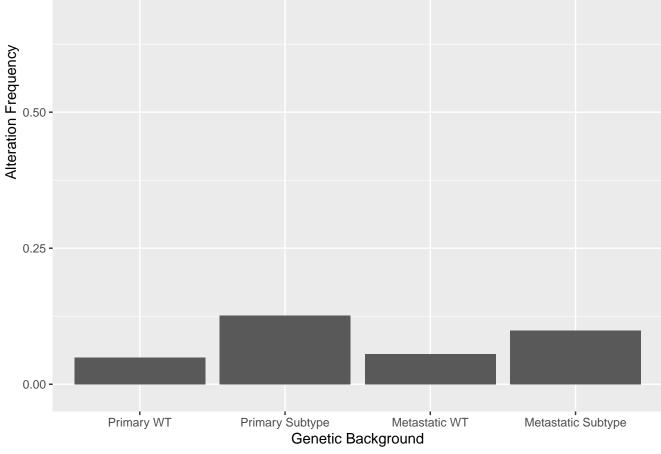
NOMO1 LOF Alterations p=7.72e-01 1.00 -0.75 -0.50 -0.25 -0.00 -Primary Subtype Primary WT Metastatic WT Metastatic Subtype

Genetic Background

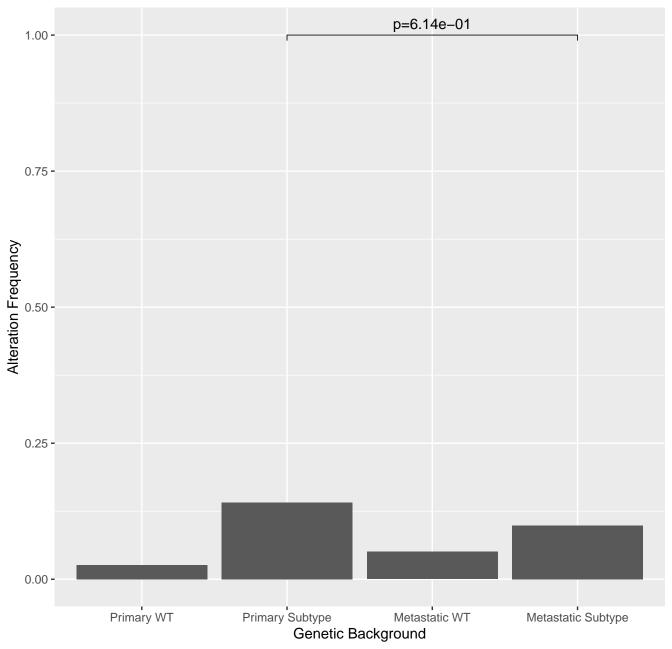
ARHGAP17 LOF Alterations



PPP4C LOF Alterations p=7.96e-01 1.00 -0.75 -

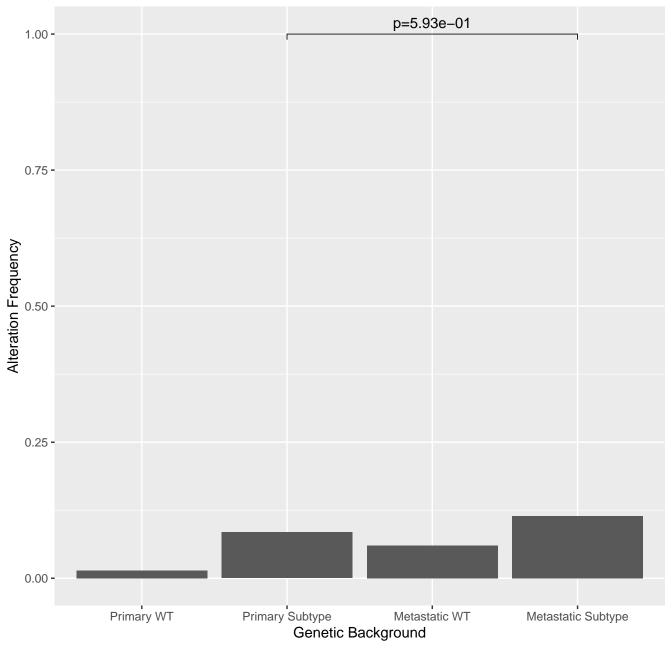


C1QTNF4 LOF Alterations



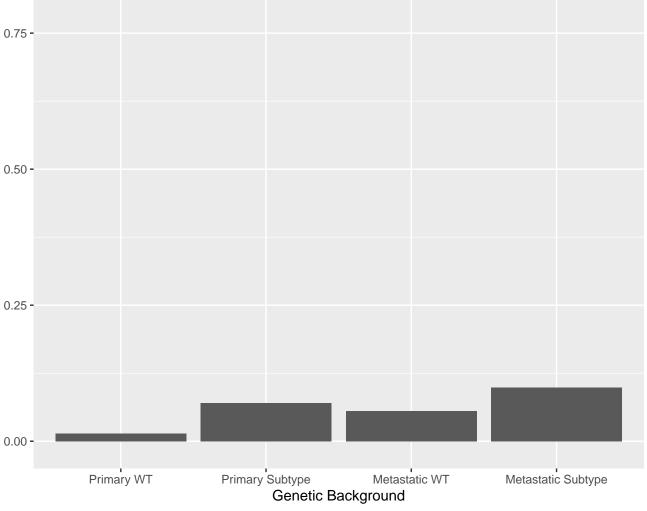
NENF LOF Alterations p=8.10e-01 1.00 -0.75 -0.50 -0.25 -0.00 -Primary Subtype Metastatic WT Primary WT Metastatic Subtype Genetic Background

ELOVL5 LOF Alterations

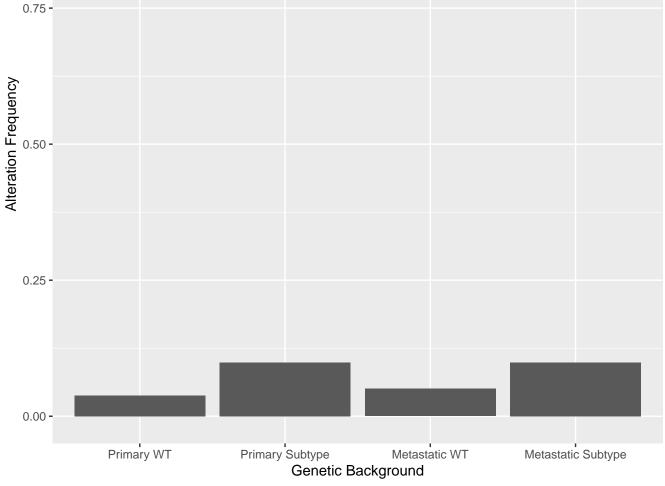


AIF1 LOF Alterations p=5.75e-01 1.00 -0.75 -Alteration Frequency 0.50 -0.25 -0.00 -Primary Subtype Primary WT Metastatic WT Metastatic Subtype Genetic Background

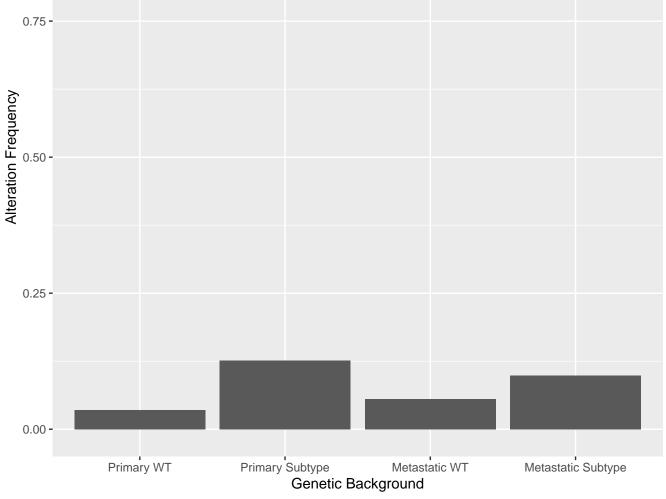
LY6G5C LOF Alterations p=5.75e-01 1.00 -



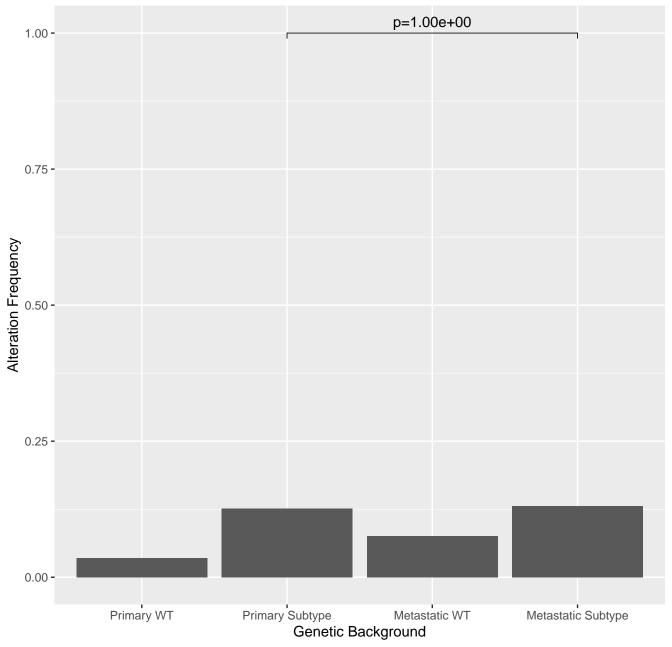
ANKS4B LOF Alterations p=1.00e+00 1.00 -



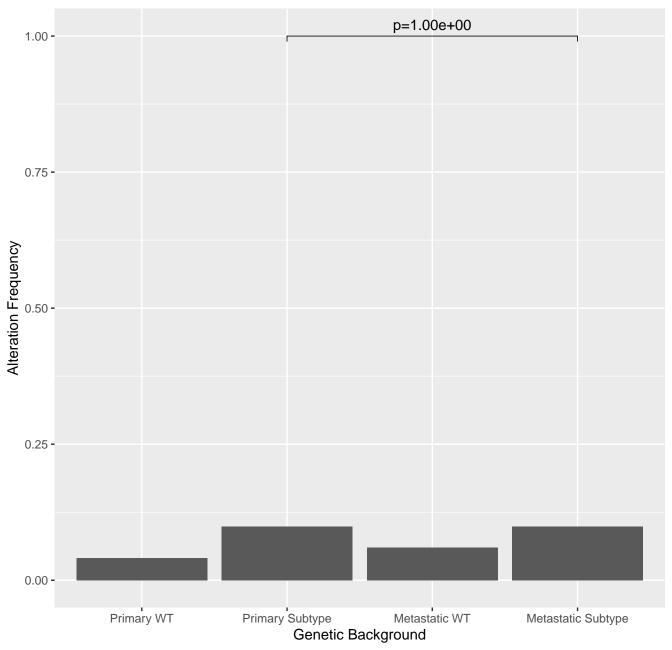
ORAI3 LOF Alterations p=7.96e-01 1.00 -



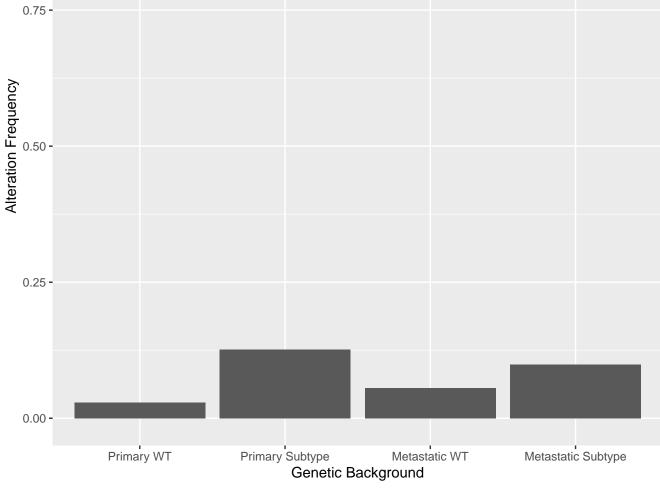
SETD1A LOF Alterations



TUFM LOF Alterations



PRSS8 LOF Alterations p=7.96e-01 1.00 -

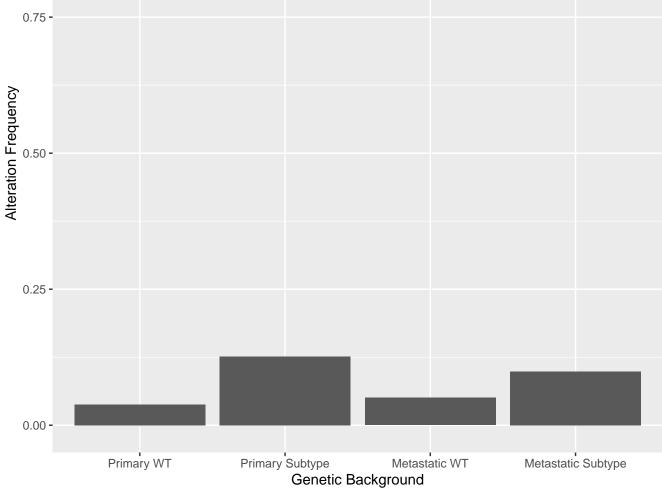


RAPSN LOF Alterations p=6.14e-01 1.00 -0.75 -0.50 -0.25 -0.00 -Primary Subtype Primary WT Metastatic WT Metastatic Subtype

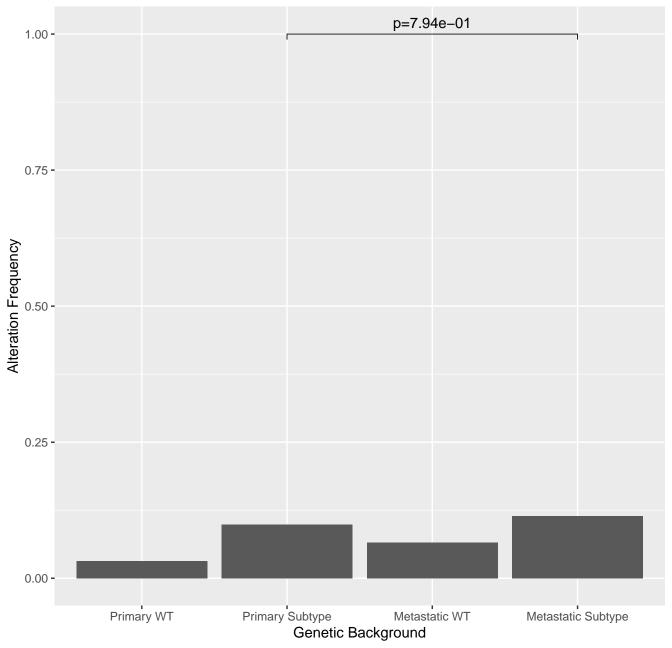
Genetic Background

MVP LOF Alterations p=8.10e-01 1.00 -0.75 -0.50 -0.25 -0.00 -Primary Subtype Metastatic WT Metastatic Subtype Primary WT Genetic Background

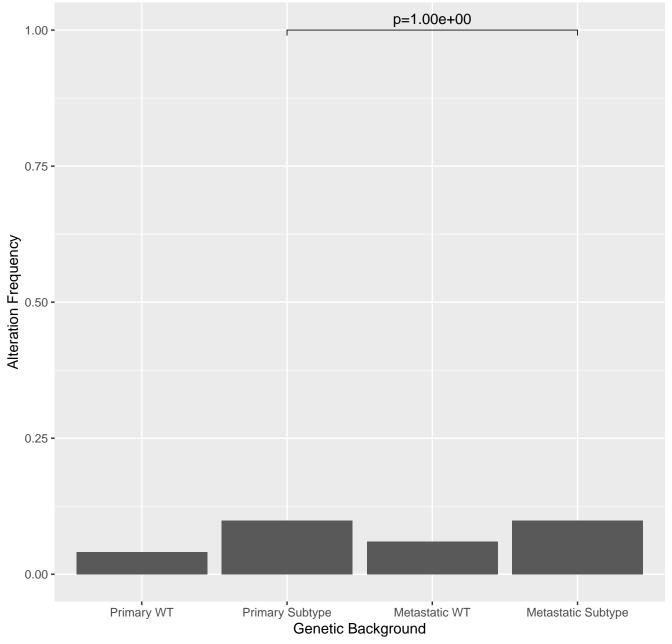
CTF1 LOF Alterations p=7.96e-01 1.00 -



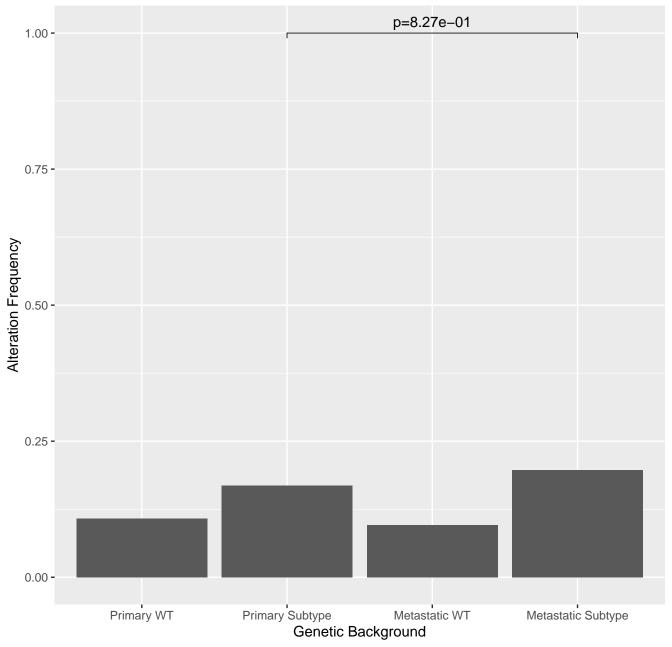
LSAMP LOF Alterations



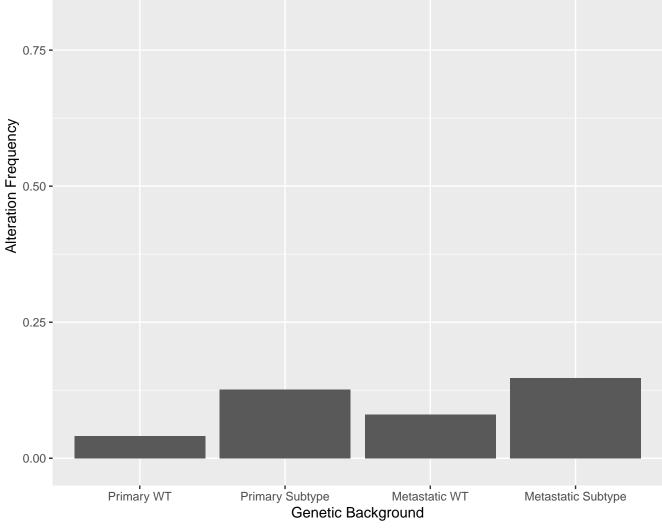
UMOD LOF Alterations



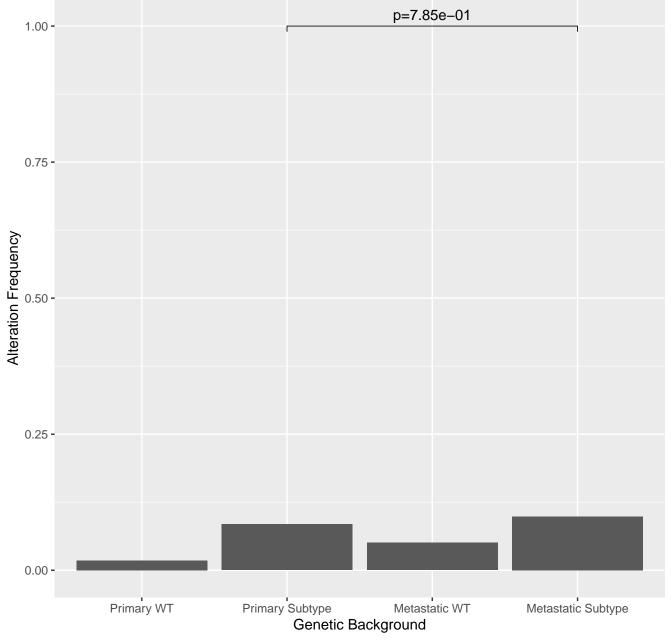
SNRPD1 LOF Alterations



SRCAP LOF Alterations p=8.10e-01 1.00 -



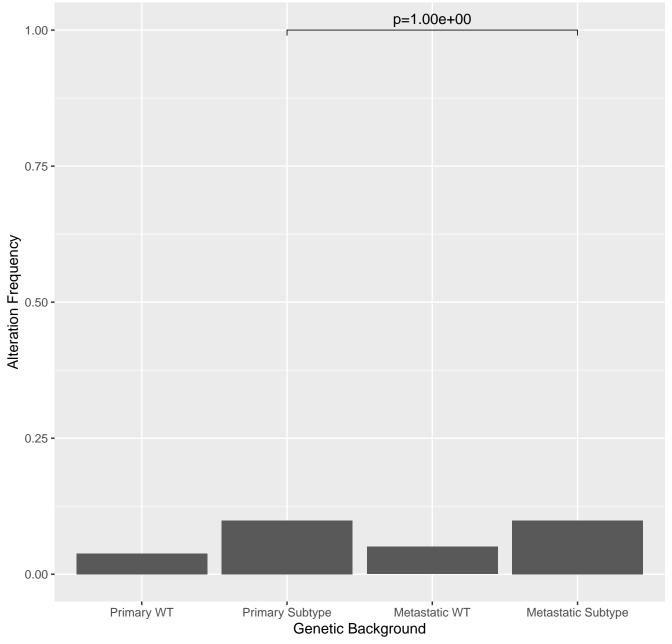
C6orf48 LOF Alterations



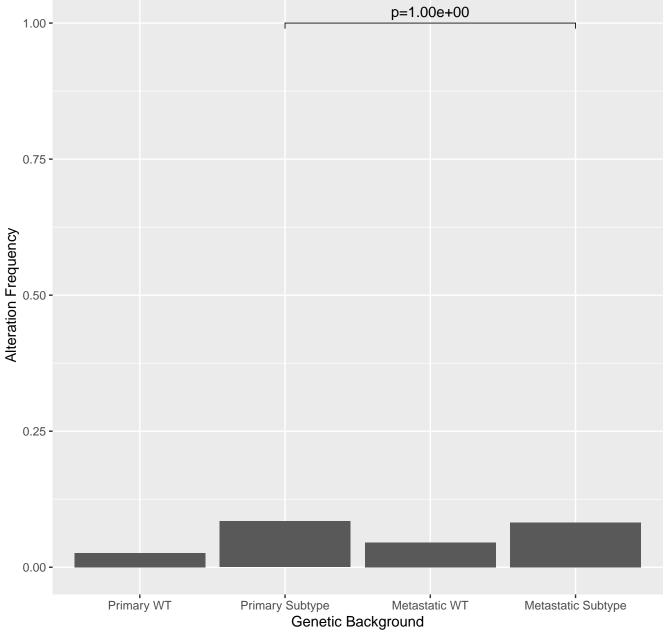
PROX1 LOF Alterations p=1.00e+00 1.00 -0.75 -0.50 -0.25 -0.00 -Primary Subtype Metastatic WT Primary WT Metastatic Subtype Genetic Background

Alteration Frequency

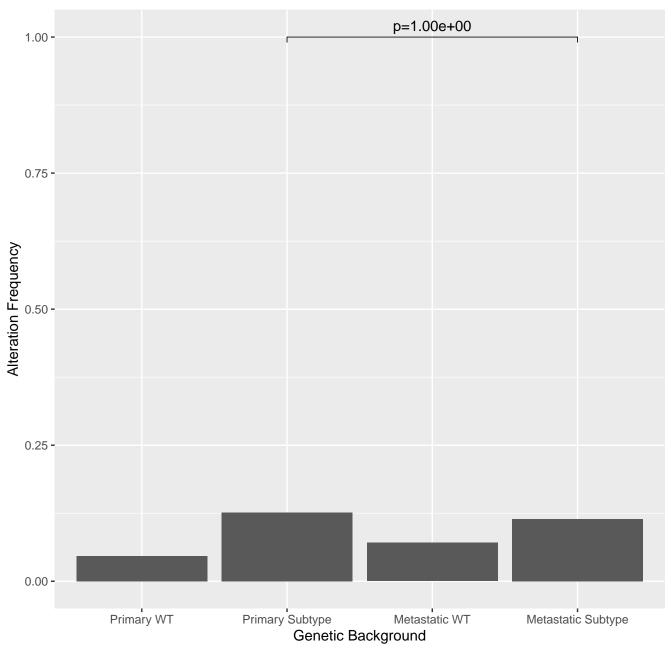
COG7 LOF Alterations



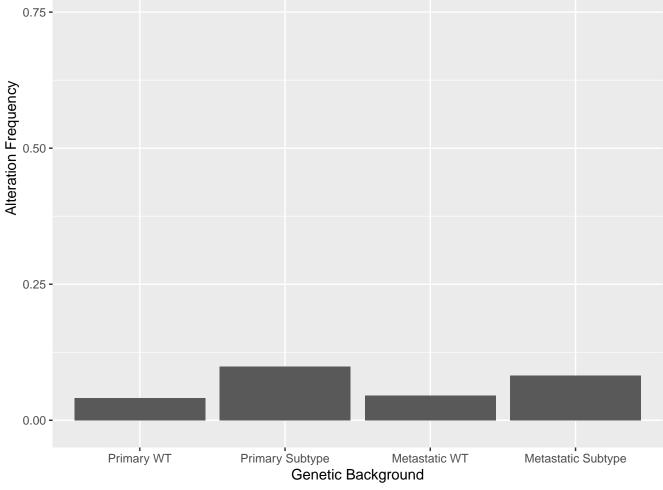
ILDR2 LOF Alterations



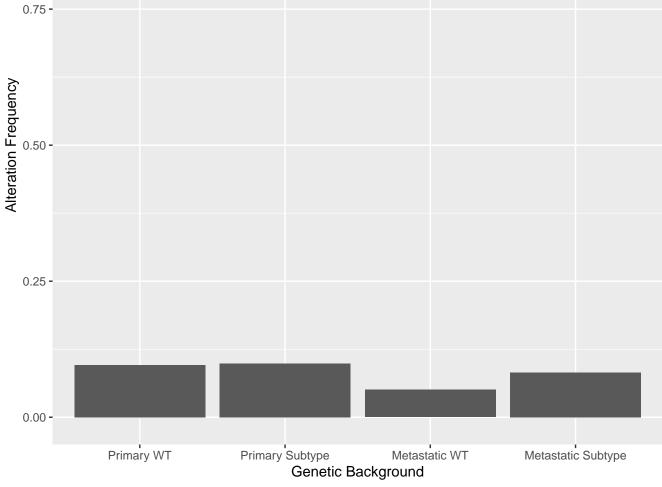
ZNF768 LOF Alterations



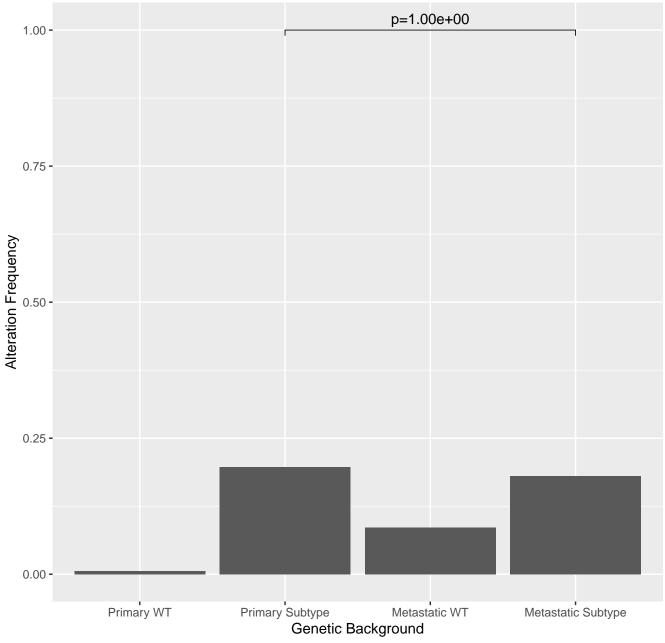
KIAA0556 LOF Alterations p=1.00e+00 1.00 -



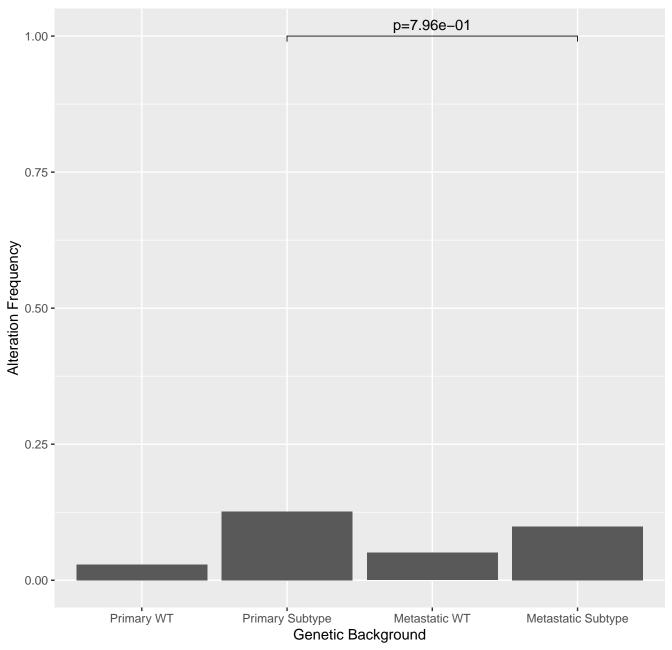
WNK4 LOF Alterations p=1.00e+00 1.00 -



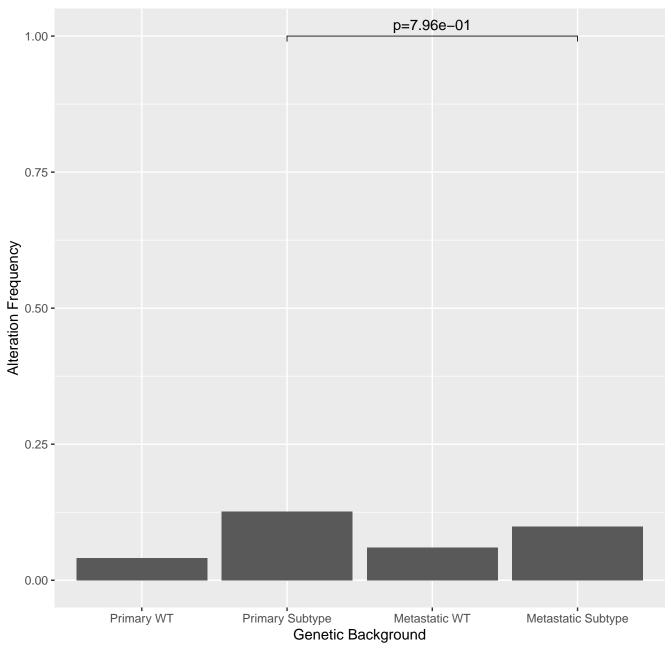
KHDRBS2 LOF Alterations



FUS LOF Alterations

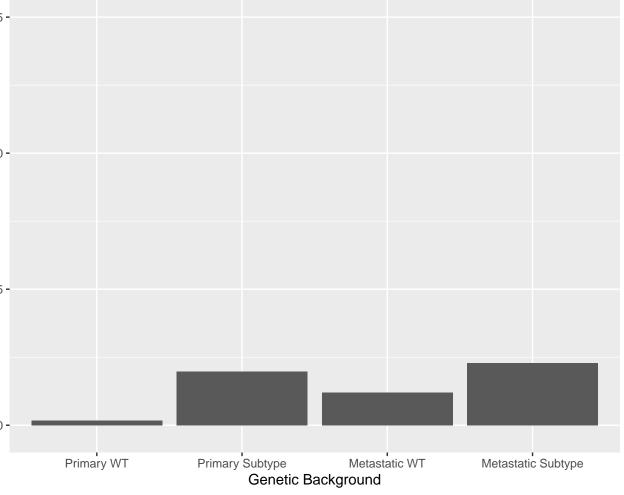


ZNF629 LOF Alterations

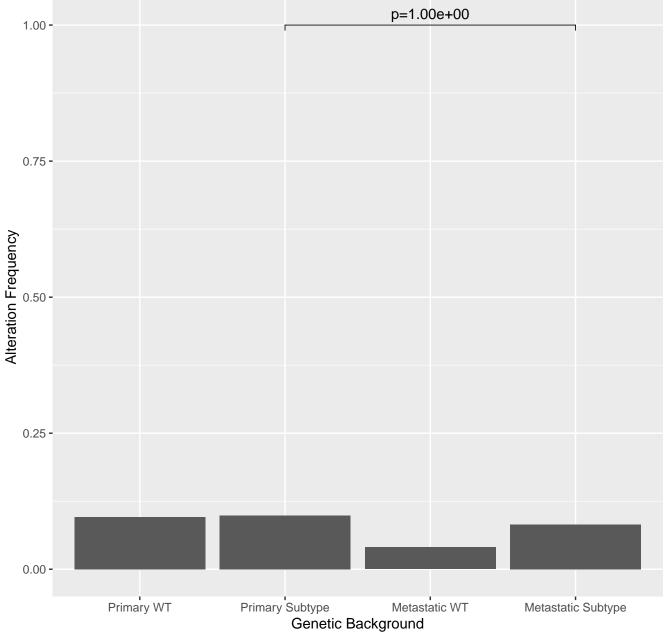


BEND6 LOF Alterations p=7.94e-01 1.00 -0.75 -0.50 -0.25 -0.00 -

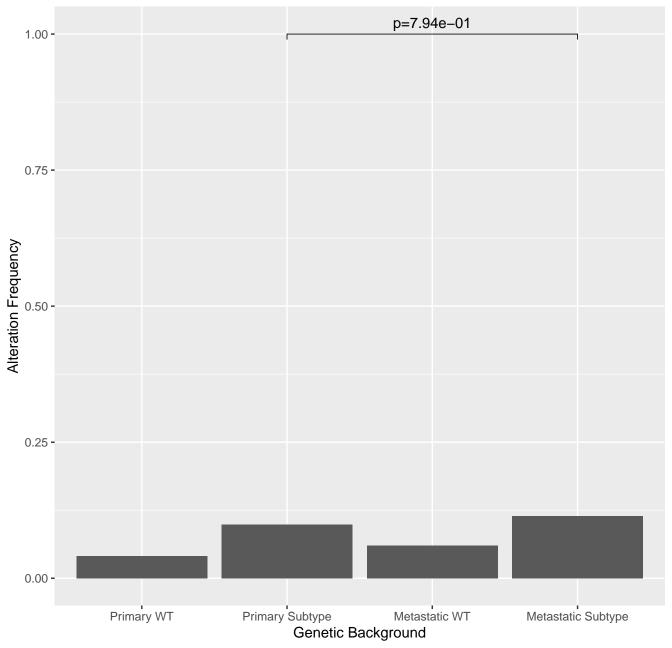
Alteration Frequency



EZH1 LOF Alterations



ATXN2L LOF Alterations



ICK LOF Alterations p=7.94e-01 1.00 -0.75 -0.50 -0.25 -0.00 -Primary Subtype Metastatic WT Primary WT Metastatic Subtype

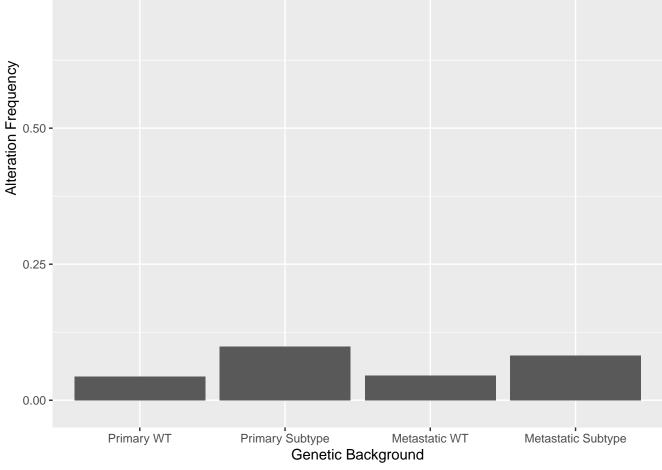
Genetic Background

Alteration Frequency

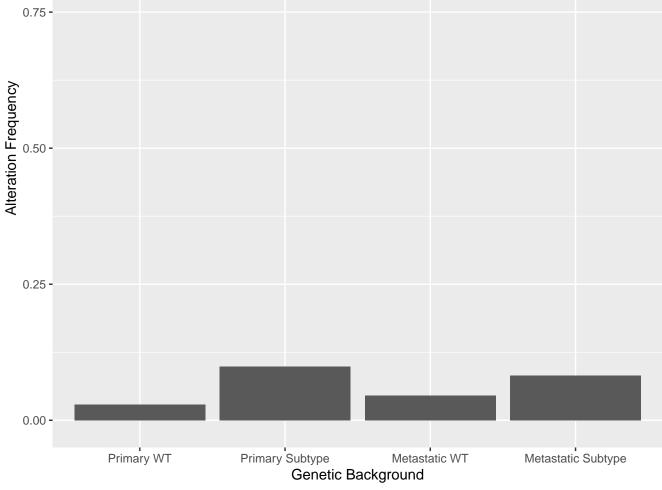
P4HB LOF Alterations p=1.00e+00 1.00 -0.75 -Alteration Frequency 0.50 -0.25 -0.00 -Primary Subtype Primary WT Metastatic WT Metastatic Subtype

Genetic Background

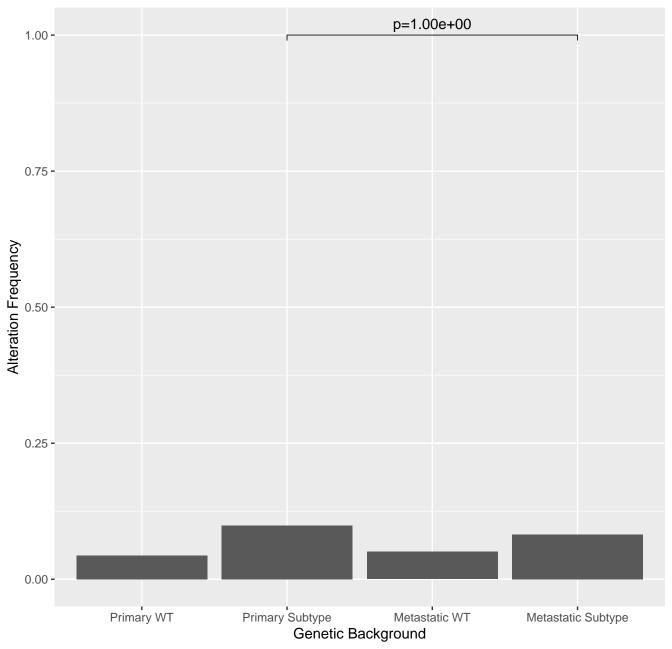
PALB2 LOF Alterations p=1.00e+00 1.00 -0.75 -



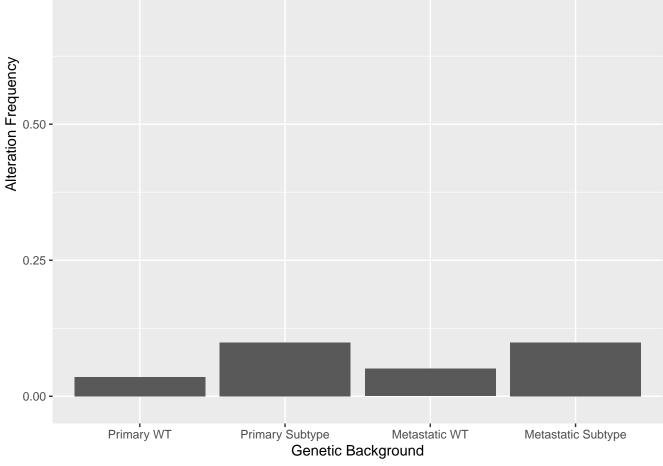
SMG1 LOF Alterations p=1.00e+00 1.00 -



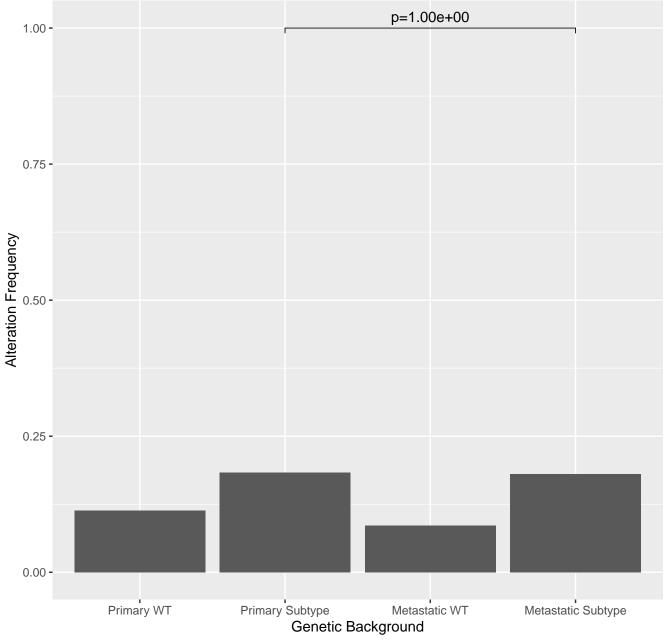
ZKSCAN2 LOF Alterations



DCUN1D3 LOF Alterations p=1.00e+00 1.00 -0.75 -



GATA6 LOF Alterations



NSMCE1 LOF Alterations p=1.00e+00 1.00 -0.75 -

