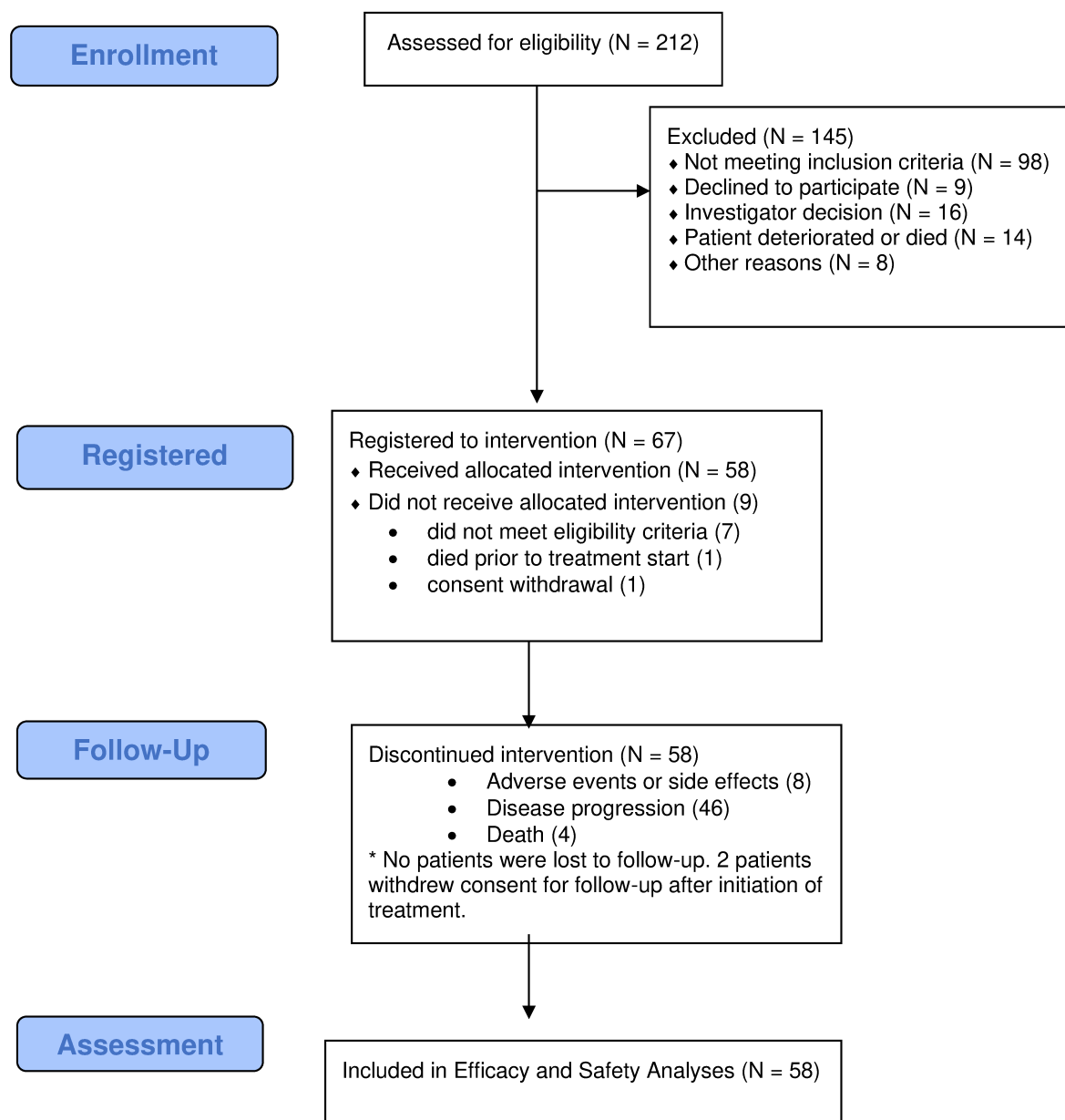


Table S1. Gene Alterations Detected by Foundation Medicine Next-Generation Sequencing Screening

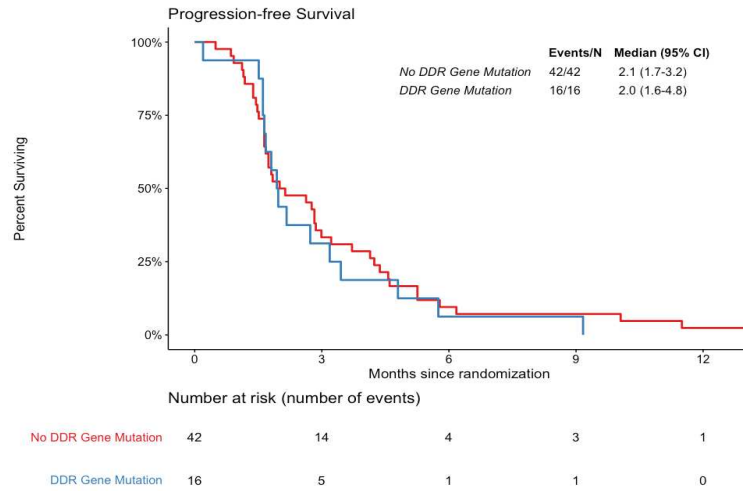
Gene Alteration	n (%) (N = 58)
Short Variants	
TP53	53 (91)
CDKN2A	14 (24)
MLL2	10 (17)
ARID1A, LRP1B, NFE2L2, PTEN	6 (10)
NOTCH1	5 (9)
KDM6A, PIK3CA, RB1	4 (7)
KEAP1, NOTCH2, TET2	3 (5)
APC, ASXL1, ATM, BCORL1, CDC73, CREBBP, FBXW7, FGFR3, KRAS, NOTCH4, PIK3R1	2 (3)
ATRX, BARD1, BCOR, BRAF, BRCA2, CASP8, CIC, DNMT3A, EED, EGFR, EP300, EPHB1, FANCA, FANCC, FANCG, FAT3, HGF, HRAS, JAK3, MET, MSH3, MTOR, MUTYH, MYD88, NCOR1, NF1, NFKBIA, NOTCH3, PAK3, PALB2, PARP4, PBRM1, RUNX1T1, SETD2, TBX3, TERT, TRRAP, TSC1, ZNF703	1 (2)
Copy Number Alterations	
SOX2	19 (33)
PIK3CA	14 (24)
CDKN2A	13 (22)
CDKN2B	10 (17)
FGF12	8 (14)
AKT2, RICTOR	6 (10)
CCND1, EGFR, FGF19, FGF3, FGF4, FGFR1, ZNF703	5 (9)
CRKL	4 (7)
CCNE1, KDM5A, MYC	3 (5)
BCL2L2, CUL4A, ERBB2, FGF10, MDM2, NF1, PTEN, REL	2 (3)
AKT1, BACH1, BAP1, BCORL1, CCND2, CDK4, CDK6, CIC, DAXX, DIS3, EPHB1, ERBB4, FBXW7, FGF14, FGF23, FGF6, FGFR3, IRS2, KDM6A, KDR, KIT, KRAS, LRP1B, MCL1, MTAP, MYCL1, MYST3, NOTCH3, PDGFRA, PIK3CG, PRKCI, RAD21, RB1, RET, TERC	1 (2)
Rearrangements	
CDK12, LRP1B	2 (3)
ARID1A, CASP8, EWSR1, MAP3K13, MLL2, MSH6, NF1, PTEN, TSC2	1 (2)

Supplemental Figure 1. Trial flow chart.



Supplemental Figure 2. Kaplan-Meier curves of progression-free survival (PFS) and overall survival (OS) in the primary and acquired PD-(L)1 resistant cohorts by presence or absence of DDR gene mutation. (A) PFS. (B) OS. DDR, DNA damage response and repair.

A. PFS



B. OS

