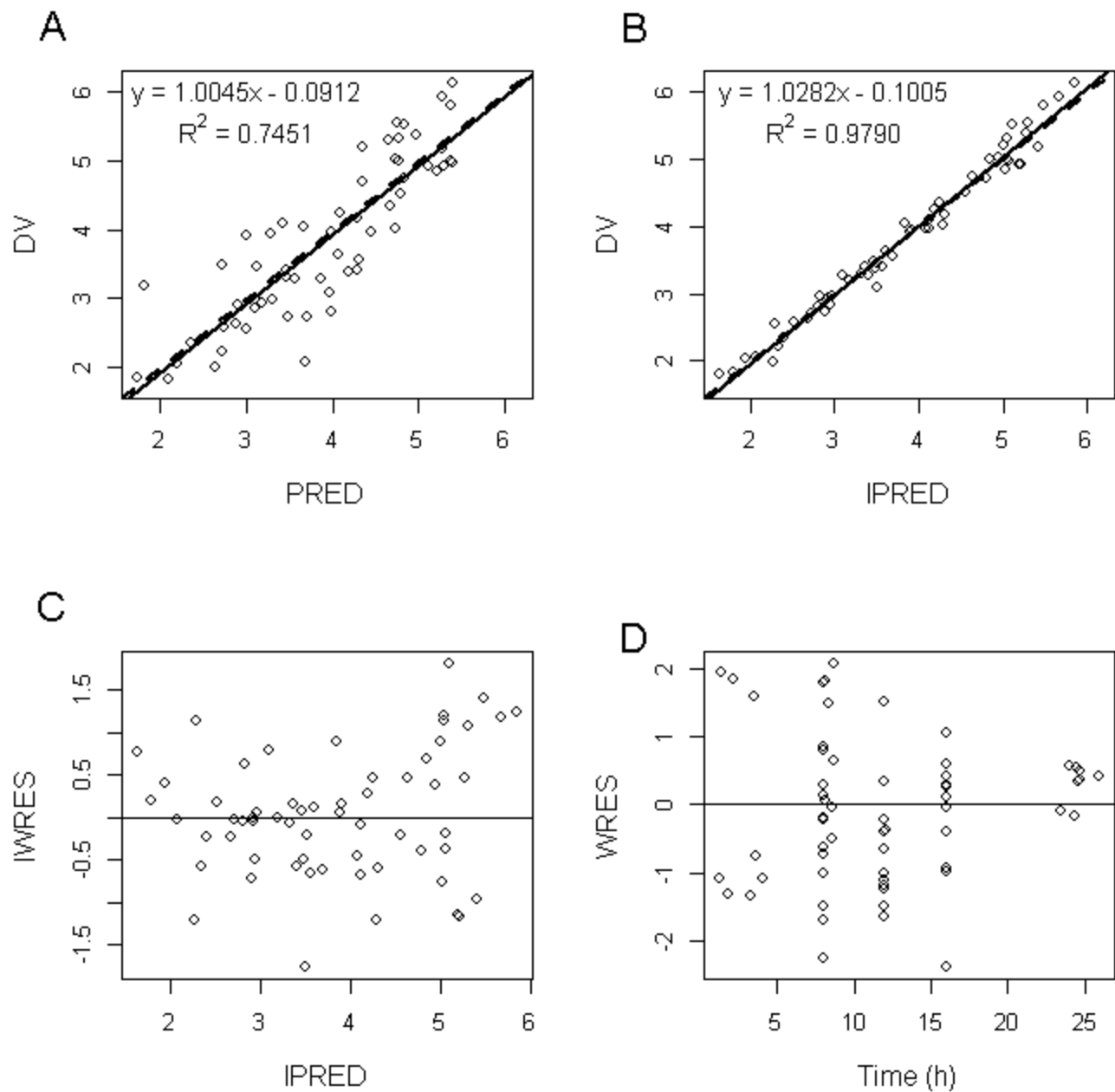


## Supplementary Figure 1



## Supplementary Table 1

<b>Gene</b>	<b>Regions of Gene Covered</b>	<b>% Coverage of Gene</b>
ABCB1	34	98.78
ABCC9	43	91.98
ATRX	38	100.00
CDKN2A	9	100.00
CDKN2B	2	100.00
CDKN2C	3	100.00
CHEK1	13	98.87
CHEK2	22	81.10
COL1A2	40	98.82
EGFR	34	99.29
IDH1	12	95.59
IDH2	10	97.14
KEL	18	98.96
MDM2	14	90.60
NF1	63	99.87
PDGFRA	28	96.72
PIK3CA	22	100.00
PIK3R1	17	100.00
PTEN	10	99.12
RB1	26	100.00
SPTA1	53	99.87
STAG2	41	98.05
TCHH	3	93.08
TP53	12	89.92
WEE1	11	99.78

## Supplementary Table 2

Trial Arm	Drug Dose	Patient #	Cell Cycle Checkpoint Genes					RTK Signaling Pathway Genes					IDH1	
			TP53	MDM2	RB1	ATR	Wee1	EGFR	PDGFRA	NF1	PTEN	PIK3R1		PIK3CA
Dose Escalation	100 mg	1						C>G <sup>a</sup>			G132D			
		2				T1582fs		C>G <sup>a</sup>						
		3						S473C			Del GT <sup>b</sup>			
		4									T>A <sup>a</sup>			
	200 mg	5												
		6	V143M			Y805fs								
		7						R108K, G312W			R233*			
		8			G>A <sup>c</sup>					G>C <sup>b</sup>	P246L		R88Q	
	400 mg	9	A276P, K139N			A>G <sup>b</sup>				D606G				R132H
		10					R1302fs		E711K					
		11												
		12												
Time Escalation	400 mg	13												
		14	L130F											
		15												
	400 mg	16								N419K	F1247fs	T>A <sup>a</sup>		
		17	V272M								A>T <sup>b</sup>		C>T <sup>b</sup>	
		18				T>C <sup>c</sup>								N1044K
		19												
		20											Q579fs	

<sup>a</sup> Variant in untranslated region (UTR), <sup>b</sup> Variant leads to splice site loss, <sup>c</sup> Variant in intronic region, \* Variant results in premature stop codon