

Table SI: Overview of KEGG-pathways with their associated differentially expressed genes in imatinib resistance.

Pathway		Genes	P-value
Overlap	Focal adhesion	<i>BCL-2, IGF1, RELN, LAMC1, VAV1, FN1</i>	0.01
	PI3K-Akt signaling pathway	<i>BCL-2, IGF1, RELN, PIK3API, KIT, LAMC1, FN1</i>	0.02
R1	PI3K-Akt signaling pathway	<i>BCL-2, KIT, FN1, IGF1, IL2RG, LAMC1, PIK3API, RELN, SYK</i>	0.03
	Small lung cancer	<i>BCL-2, RB1, FN1, LAMC1</i>	0.05
R2	FcγR-mediated phagocytosis	<i>FCGR2A, GAB2, WASF1, CFL2, DOCK2, PIK3CG, PLD1, PRKCB, PTPRB, VAV1</i>	0.004
	Pathways in cancer	<i>APC, BCL-2, BRCA2, CXCL8, KIT, MDM2, RUNX1T1, SKP2, CCNE2, DAPK1, FGFR3, FN1, FZD3, FZD5, IGF1R, IGF1, LAMB1, LAMC1, PIK3CG, PRKCB, SLC2A1, TGFBR2, VEGFA</i>	0.04

P<0.05. R1, replicate 1; R2, replicate 2; overlap, both replicates.

Table SII. Number of genes with min. 3 differentially methylated CpGs per gene in all genomic regions in imatinib and nilotinib resistance compared to K-562 cells.

Sample	Number of genes with min. 3 CpGs (methylation profile)	Overlap with differentially expressed genes (GEP)	Overlap between biological replicates	Overlap between IM resistance
lowIM-R1	5226	302	176	50
lowIM-R2	3386	296		
highIM-R1	6556	403	112	
highIM-R2	4987	398		
N-R1	5320	403	44	
N-R2	2517	159		

All differentially methylated CpGs were included. R1, replicate 1; R2, replicate 2; lowIM, 0.5  $\mu$ M imatinib; highIM, 2  $\mu$ M imatinib; N, 0.1  $\mu$ M nilotinib; GEP, gene expression profile.

Table SIII. Number of genes with min. 3 differentially methylated CpGs in the promoter region in imatinib and nilotinib resistance compared with K-562 cells.

Sample	Number of genes with min. 3 CpGs in TSS (methylation profile)	Overlap with differentially expressed genes (GEP)	Overlap between biological replicates	Overlap between TKI resistance
lowIM-R1	1171	57	12	5
lowIM-R2	438	34		
highIM-R1	1399	98	17	
highIM-R2	1070	80		
N-R1	1214	95		7
N-R2	404	21		

CpGs located in the TSS were included. R1, replicate 1; R2, replicate 2; lowIM, 0.5  $\mu$ M imatinib; highIM, 2  $\mu$ M imatinib; N, 0.1  $\mu$ M nilotinib; GEP, gene expression profile; TSS, transcriptional start side; TKI, TKI, tyrosine kinase inhibitor.