LETTER TO THE EDITOR

Long-read sequencing resolves *TP53* allelic status in myeloid neoplasms

Authors

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Patient Id	*Mutation count*	*Distance between mutations (bp)*	…..	Exon 4	Exon 5	Exon 6	Exon 7	Exon 8	Exon 9	…..	Exon 11
1	3	2262		7676044 (1%)			7674247 (13%)	7673782 (21%)			
2	2	610					7674220 (19%)		7673610 (13%)		
3	2	104			7675070 (5%)	7674966 (5%)					
4	2	12			7675076 (53%) 7675088 (43%)						
5	2	1217			7675052 (31%)			7673835 (42%)			
6	2	315			7675232 (23%)	7674917 (22%)					
7	2	25			7675077 (25%) 7675052 (26%)						
8	2	945		7676101 (1%)	7675156 (5%)						
9	2	1143				7674945 (3%)		7673802 (11%)			
10	2	198			7675088 (38%)	7674890 (36%)					
11	2	264			7675136 (42%)	7674872 (45%)					
12	2	847		7676032 (15%)	7675185 (13%)						
13	2	856			7675086 (12%)		7674230 (29%)				
14	4	1355			7675157 (24%)		7674230 (5%) 7674216 (16%)	7673802 (19%)			
15	2	70					7674291 (2%) 7674221 (5%)				
16	2	1121				7674885 (16%)		7673764 (18%)			
17	2	647				7674894 (19%)	7674247 (48%)				
18	2	1331		7676203 (19%)		7674872 (46%)					
19	2	2279		7676081 (35%)				7673802 (1%)			
20	2	1353			7675109 (44%)			7673756 (46%)			
21	2	758		7675993 (47%)	7675235 (49%)						
22	3	5488			7675161 (1%)	7674872 (32%)					7669673 (2%)
23	2	2160		7675995 (39%)				7673835 (42%)			
24	2	1098				7674886 (7%)		7673788 (3%)			
25	2	1331		7676203 (6%)		7674872 (27%)					
26	2	675				7674895 (5%)	7674220 (42%)				
27	2	652				7674893 (45%)	7674241 (44%)				
28	2	631				7674883 (28%)	6674252 (26%)				
29	2	31		7676273 (32%) 7676242 (32%)							

Figure S1. ***TP53 mutation landscape in the study cohort.*** *Data from 29 patients with myelodysplastic neoplasms (MDS) harboring 62 TP53 mutations identified by short-read sequencing (SRS) are summarized. The figure shows the TP53 gene structure with mutation sites and corresponding positions in the coding sequence (NM_000546.6, hg38); variant allele frequencies (VAFs) are shown in parentheses. Exons are depicted as colored blocks, with colors indicating functional domains.*

Table S1. ***DNA Extraction, NGS Panels, Sequencing Platforms, and TP53 Primer Specifications***

DNA extraction protocols, NGS-panels and sequencing platforms used

DNA extraction protocol	**NGS panel and sequencing platform (short-read sequencing)**	
Maxwell RSC Cell DNA (AS1370)	Oncomine™ Myeloid Research Assay - Chef Ready (A36941)	Ion Proton
QIAsymphony DSP DNA Midi Kit (96) (ID. 937255)	Sophia DDM™ Myeloid Solution (BS0103ILLCSML01-032)	Illumina MiSeq
	AmpliSeq for Illumina Myeloid Panel Customized with 9 extra genes (reference)	Illumina NextSeq 500

PCR primers for TP53 exons 2–11: sequences, binding positions, and sizes of primers and amplicons

Name	**Sequence**	**Start**	**End**	**Exon**	**Span (bp)**
*TP53*_US_For	5'-TGGGCCAGCAGAGACTTGACAAC	7.669.004	7.669.026		23
*TP53*_DS_Rev	5'-TCCCCACTTTTCCTCTTGCAGCAG	7.676.620	7.676.643		24
*TP53*_US_For + *TP53*_DS_Rev		7.669.004	7.676.643	2-11	7640