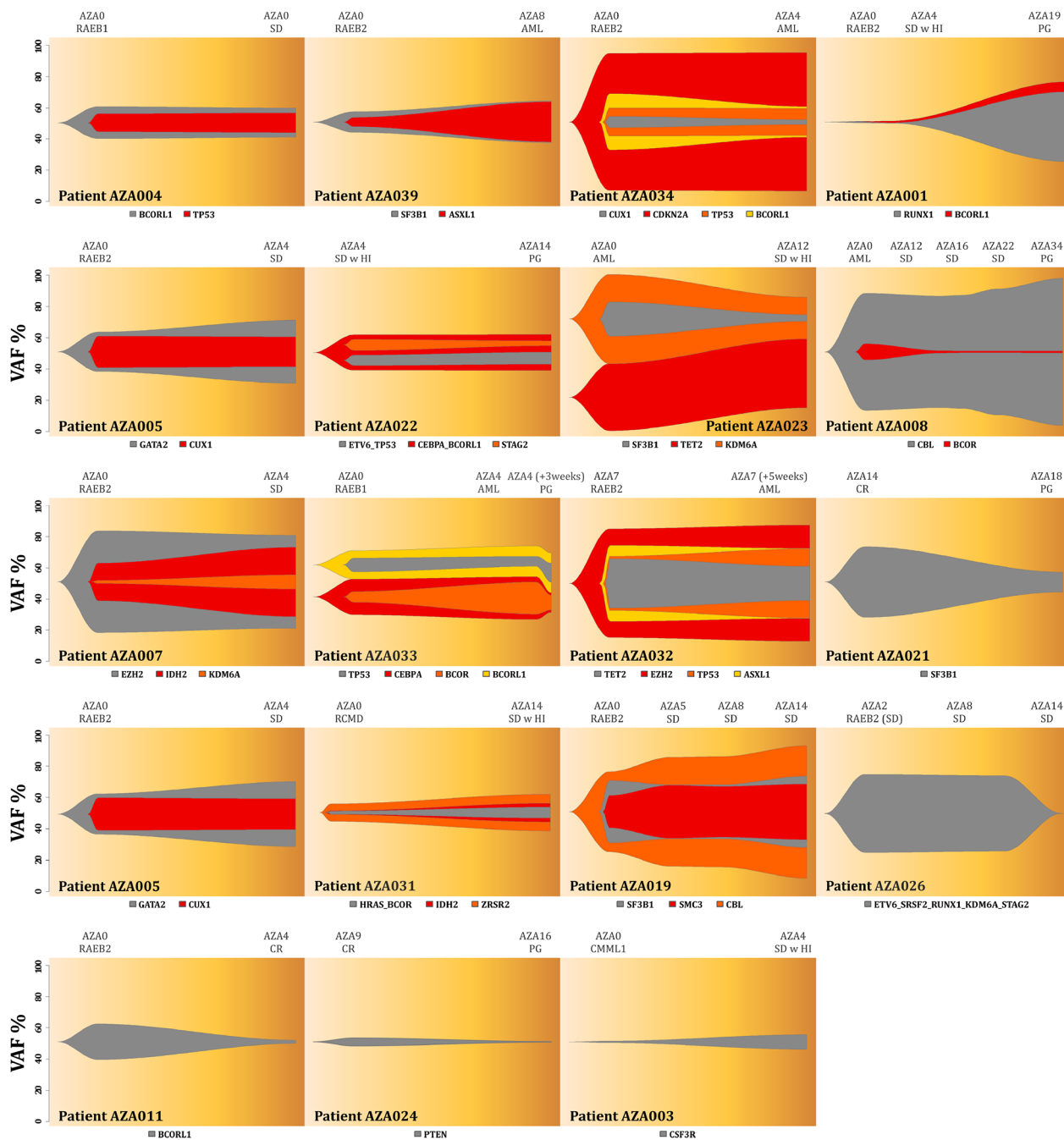


# Somatic mutation dynamics in MDS patients treated with azacitidine indicate clonal selection in patients-responders

## SUPPLEMENTARY MATERIALS



Supplementary Figure 1: Fish plots of somatic variants with stable profiles detected in MDS patients.

**Supplementary Table 1: Clinical data of the MDS cohort indicating (from top): demographics, MDS classification, IPSS-R, cytogenetics, selected BM and PB findings, and finally the responses**

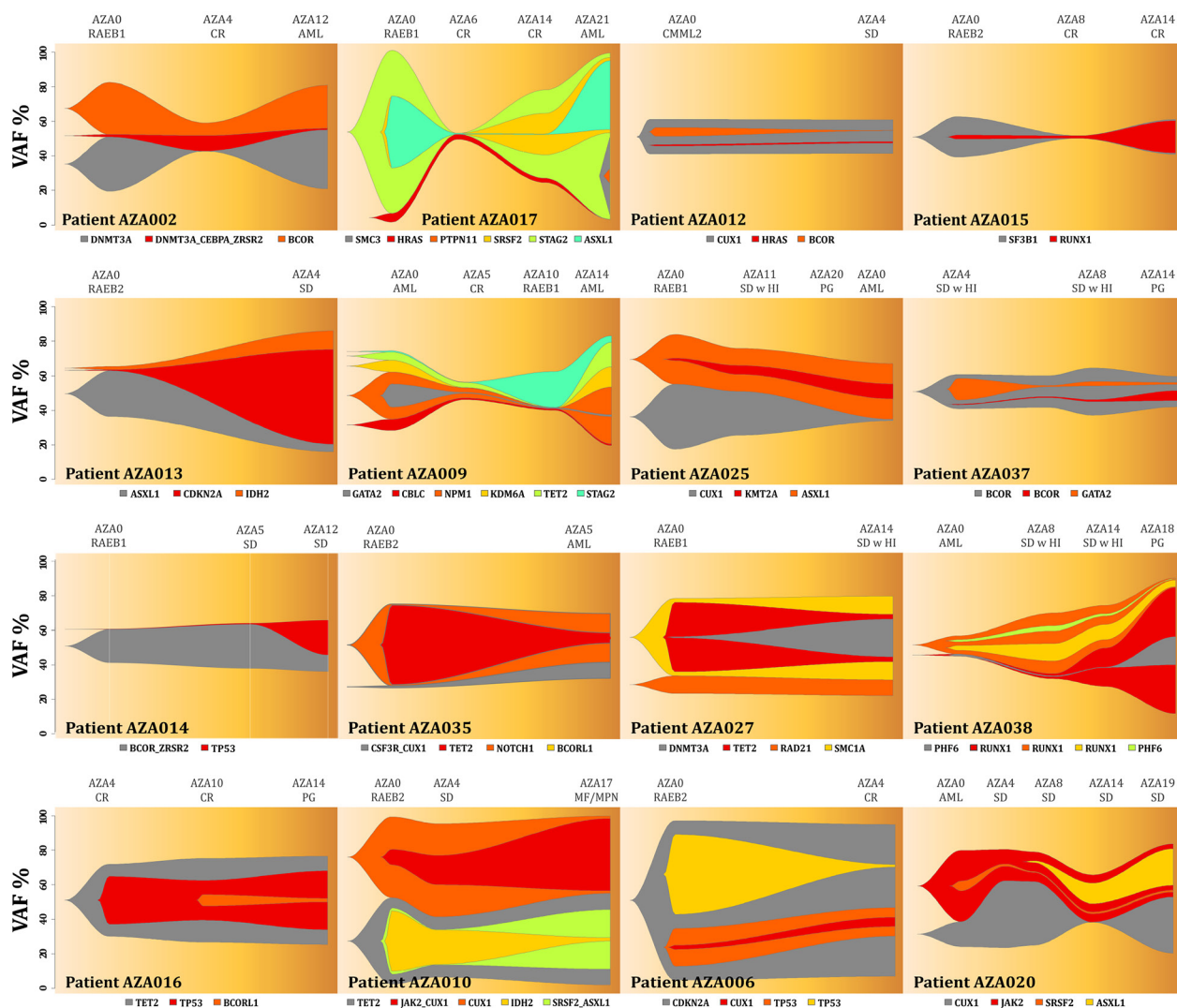
<b>Demographics</b>		
<i>Age (median, range)</i>	70	57-82
<i>Sex (number, %)</i>		
Female	20	53%
Male	18	47%
<b>MDS classification (number, %)</b>		
<i>RA</i>	0	0%
<i>RARS</i>	0	0%
<i>RCMD</i>	1	3%
<i>RAEB1</i>	13	34%
<i>RAEB2</i>	17	45%
<i>MDS/AML</i>	5	13%
<i>CMML</i>	2	5%
<b>IPSS-R risk group (number, %)</b>		
<i>Very low</i>	0	0%
<i>Low</i>	1	3%
<i>Intermediate</i>	14	37%
<i>High</i>	18	47%
<i>Very high</i>	5	13%
<b>Cytogenetics risk group (number, %)</b>		
<i>Very good</i>	0	0%
<i>Good</i>	26	68%
<i>Intermediate</i>	5	13%
<i>Poor</i>	4	11%
<i>Very poor</i>	3	8%
<b>Karyotype (number, %)</b>		
<i>Normal</i>	16	42%
<i>Abnormal</i>	22	58%
<b>Clinical characteristics (median, range)</b>		
<i>BM-Blasts [%]</i>	10	2-26
<i>PB-Hemoglobin [g/L]</i>	91	62-128
<i>PB-ANC [<math>\times 10^9/L</math>]</i>	1.24	0.01-11.6
<i>PB-Platelets [<math>\times 10^9/L</math>]</i>	80	2-576
<b>Outcome (number, %)</b>		
<i>CR</i>	11	29%
<i>SD with HI</i>	11	29%
<i>SD without HI</i>	12	10,5 %
<i>primary PG</i>	4	31,5 %
<i>AML transformation (total)</i>	24	63%

**Supplementary Table 2: Complete list of detected variants.** Patients' codes are in the 1st column. Responses to AZA are listed in the 2nd column: PG progression, SD stable disease, SD w HI, CR: short (<12 Mo) and long (>12Mo). Mutation dynamics is listed in the 3rd column (VAF INC= increasing more than 2-fold, DEC=decreasing more than 2-fold, complex dynamics: INC-DEC & DEC-INC, ST= stable). Gene symbols, gene localization, amino acid change (AA), and COSMIC assembly (or NA= not assembled) as indicated.

**See Supplementary File 1**

**Supplementary Table 3: List of all variants and clinical and laboratory data.** Codes of AZA-treated patients, their OS (Mo), IPSS-R, sample codes, % BM myeloblasts (MB), cycles of AZA, cytogenetic data, occurrence of AML progression together with gene mutations and their VAF accompanied by reads numbers are shown.

**See Supplementary File 2**



Supplementary Figure 2: Fish plots of somatic variants with highly unstable and variable profiles detected in MDS patients.