

## SUPPLEMENTARY TABLES

**Supplementary Table S1. Monoclonal antibody reagents used for the immunophenotypic characterization of blastic plasmacytoid dendritic cell neoplasms****Supplementary Table S2. Immunophenotypic characteristics of blastic plasmacytoid dendritic cell neoplasms according to the three phenotypic-based groups defined in this study****Supplementary Table S3. Clinical features and outcome of aggressively-treated blastic plasmacytoid dendritic cell neoplasms ( $n = 25$ ) according to the type of polychemotherapy regimen received**

Patients features	ALL-type $n = 7$	AML-type $n = 9$	C(H)OP-type $n = 9$	<i>P</i> -value
Age (years)	36 ± 27 (8–70)	47 ± 17 (10–65)	67 ± 15 (42–81)	≤.03 <sup>a, b</sup>
Age distribution (child/adult)	3/4 (43%/57%)	1/8 (11%/89%)	0/9 (0%/100%)	NS
Sex (male/female)	6/1 (86%/14%)	3/6 (33%/67%)	8/1 (89%/11%)	.03 <sup>b</sup>
<b>Clinical outcome</b>				
Median EFS (months)	NR	8 (7–9)	7 (4–10)	.01 <sup>a</sup>
Median OS (months)	NR	11 (8–14)	10 (4–16)	.03 <sup>a</sup>
Complete remission	7/7 (100%)	9/9 (100%)	7/9 (78%)	NS
Relapse	3/7 (43%)	7/9 (78%)	7/7 (100%)	.04 <sup>a</sup>
CNS relapse/progression	1/6 (17%)	1/4 (25%)	5/6 (83%)	.04 <sup>a</sup>
AHSC transplantation	2/7 (29%)	3/9 (33%)	0/9 (0%)	NS
Overall mortality	3/7 (43%)	8/9 (89%)	9/9 (100%)	.02 <sup>a</sup>
Deaths after remission	3/7 (43%)	8/9 (89%)	7/7 (100%)	.04 <sup>a</sup>
Deaths after transplant	0/2 (0%)	2/3 (67%)	NA	NS

Results expressed as number of cases from all cases with available data (percentage) except for age, where mean ± one standard deviation is used, and EFS and OS where results are expressed as median and lower and upper limits of 95% confidence interval. <sup>a</sup>ALL-type therapy vs C(H)OP-type therapy <sup>b</sup>AML-type therapy vs C(H)OP-type therapy. BPDC: blastic plasmacytoid dendritic cell; ALL: acute lymphoblastic leukemia; AML: acute myeloblastic leukemia; C(H)OP-like therapy: COP/CHOP-like therapy; NS: no statistically significant differences ( $p > 0.05$ ); EFS: event free survival; NR: not reached; OS: overall survival; CNS: central nervous system; AHSC: allogeneic hematopoietic stem cell; NA: not applicable.