

SUPPLEMENTAL DATA

METHODS

Study design and patients

Additional inclusion criteria were: signed informed consent; morphologically confirmed diagnosis of AML; white blood cells (WBC) $\leq 30 \times 10^9/L$ at diagnosis; WHO performance status ≤ 3 ; life expectancy of at least 2 months; adequate renal (serum creatinine < 2 mg/dl), pulmonary and hepatic (ALT/AST $\leq 2.5 \times N$) function; adequate left ventricular ejection fraction defined as $\geq 50\%$ on ECHO or MUGA. Exclusion criteria were: HIV infection or HCV positivity; resistant/relapsed AML; evidence of acute promyelocytic leukaemia (*PML/RARA* or variants positivity); current uncontrolled infection; active second malignancy; intercurrent organ damage or medical problems that would interfere with therapy; concurrent therapy for another malignancy; uncontrolled insulin-dependent diabetes mellitus or uncompensated major thyroid or adrenal dysfunction; active heart disease including myocardial infarction within previous 3 months, symptomatic coronary artery disease, arrhythmias not controlled by medication, or uncontrolled congestive heart failure (New York Heart Association Class III or IV); no concomitant treatment with chemotherapy or immunotherapy; treatment with any other investigational agent, or participating in another clinical trial within 30 days prior to entering this study.

Gene expression profile generation and analysis

Gene expression profiling was performed as previously reported.²⁰⁻²⁴ Briefly, AML blasts were collected from patients' peripheral blood or bone marrow at diagnosis, before treatment initiation. PBMC were isolated as previously reported and stored as cellular pellets in liquid nitrogen. Total RNA was then extracted using the TRIzol reagent (Invitrogen and Life Technologies), purified using the RNeasy Kit (QIAGEN) as previously describe,¹⁻⁴ and processed according to the

Affymetrix Expression Analysis Technical Manual. cRNA was finally hybridized on the Human Gene 2.0 Affymetrix microarray (Affymetrix, Santa Clara, CA, USA). Raw data were then imported in GeneSpring GX12 (Agilent, USA) and analysed as previously reported.¹⁻⁴

Principal component analysis (PCA) was performed by using GeneSpring GX 12.0 (Agilent, USA), as previously described.⁴ Unsupervised clustering was generated using a hierarchical algorithm based on the average-linkage method.^{5,6} Only genes displaying a twofold average change in the expression level across the whole panel were chosen to generate the hierarchical clustering. The expression value of each selected gene is normalized to have a zero mean value and unit standard deviation. The distance between two individual samples was calculated by Pearson distance with the normalized expression values. To perform the supervised gene expression analysis, we used GenSpring GX12.0 and set conventional parameters (pvalue<0.05; fold change >2; False discovery rate according to Benjamini-Hockeberg). In the matrix, each column represents a sample and each row represents a gene. The color scale bar shows the relative gene expression changes normalized by the standard deviation (0 is the mean expression level of a given gene).

EASE software was applied in order to establish whether specific cell functions and biological processes, defined according to gene ontology,^{7,8} were significantly represented among the deregulated genes.^{9,10}

To identify minimal gene sets (MGS) able to discriminate cases characterized by diverse clinical response to treatment, stepwise discriminant analysis was performed using IBM SPSS Statistics 20.0 (IBM, Armonk, USA).⁴

For sample classification, we then used a Support Vector Machine (SVM) algorithm and the leave-one-out method to classify cell type correlating with a specific clinical outcome (i. e. achievement or not of complete remission, CR).¹⁻³ In brief, the classifier is a confidence measure scoring function based on the values of a set of genes (gene cluster), which are differentially

expressed in two sets of cell types, and thus, can be used for cell type classification. The higher the score, the more likely it is that a cell type is related to the phenotype set. Samples with confidence measure score minor than 0,05 would be not assigned to a particular phenotype and flagged as unclassified.

Gene expression studies were conducted according to MIAME guidelines. Raw gene expression data will be available at <http://www.ncbi.nlm.nih.gov/projects/geo/> upon publication.

Reverse-Transcription and quantitative real time-PCR

All RNAs extracted were treated with DNase by using RQ1 kit (Promega) and 1 ng of each sample was retrotranscribed with Improm II kit (Promega) following the manufacturers' instructions.

All cDNAs obtained were quantified by SYBR Green-based quantitative realtime PCR (qPCR) amplifying specific regions of *CXCL16*, *CD93*, *GORASP1* and *GAPDH*. Primers forward and reverse for PCR amplification of *CXCL16*, *CD93* and *GORASP1* were designed by using Primer3 online software or by Primer Design (Roche) (supplementary table 1). In brief, SYBR Green real-time PCR assay was carried out in 12 microL of PCR mixture volume consisting of 6 microL of Master Mix (Promega, Madison, WI, USA), 0.18 microL of 10 microM of *CXCL16* or *CD93* and 0.36 microL for *GORASP1* primers, and 1 microL of obtained cDNA. The *CXCL16* gene amplification was performed as follows: 95°C for 2 minutes; 46 cycles of 95°C for 15 seconds, 58°C for 30 sec and 82°C for 25 sec. The *CD93* gene amplification was performed as follows: 95°C for 2 minutes; 46 cycles of 95°C for 15 seconds, 58°C for 30 sec and 83.5°C for 25 sec. The *GORASP1* gene amplification was performed as follows: 95°C for 2 minutes; 46 cycles of 95°C for 15 seconds, 58°C for 30 sec. At the end of all amplification cycles, melting temperature analysis was carried out by a slow increase in temperature (0.1 °C/s) up to 95°C. Amplification, data acquisition and analysis were carried out by Applied Biosystems 7500 Real-Time PCR instrument

using Applied Biosystems 7500 Real-Time PCR System software. The data was normalized with parallel amplification of *GAPDH* gene and analysed with the ΔC_t method as previously described.¹¹

qPCR was applied to 21 cases (for which residual RNA was available) from this trial and in 36 cases from a distinct UK trial, that served as independent validation cohort.

REFERENCES

1. Piccaluga PP, Agostinelli C, Califano A, et al. Gene expression analysis of peripheral T cell lymphoma, unspecified, reveals distinct profiles and new potential therapeutic targets. *J Clin Invest.* 2007; 117(3):823-34.
2. Piccaluga PP, Agostinelli C, Califano A, et al. Gene expression analysis of angioimmunoblastic lymphoma indicates derivation from T follicular helper cells and vascular endothelial growth factor deregulation. *Cancer Res.* 2007; 67(22):10703-10.
3. Piccaluga PP, Califano A, Klein U, et al. Gene expression analysis provides a potential rationale for revising the histological grading of follicular lymphomas. *Haematologica.* 2008; 93(7):1033-8.
4. Piccaluga PP, De Falco G, Kustagi M, et al. Gene expression analysis uncovers similarity and differences among Burkitt lymphoma subtypes. *Blood.* 2011; 117(13):3596-608.
5. Hartigan JA. Clustering Algorithms. John Wiley & Sons, Inc, New York. 1975:351 pp.
6. Eisen MB, Spellman PT, Brown PO, et al. Cluster analysis and display of genome-wide expression patterns. *Proc Natl Acad Sci USA.* 1998; 95(25):14863-8.
7. Jenssen TK, Laegreid A, Komorowski J, Hovig E. A literature network of human genes for high-throughput analysis of gene expression. *Nat Genet.* 2001; 28(1):21-8.
8. Hosack DA, Dennis G Jr, Sherman BT, Lane HC, Lempicki RA. Identifying biological themes within lists of genes with EASE. *Genome Biol.* 2003; 4(10):R70.
9. Dennis G Jr, Sherman BT, Hosack DA, Yang J, Gao W, Lane HC, Lempicki RA. DAVID: Database for Annotation, Visualization, and Integrated Discovery. *Genome Biol.* 2003;4(5):P3.
10. Huang da W, Sherman BT, Lempicki RA. Systematic and integrative analysis of large gene lists using DAVID bioinformatics resources. *Nat Proto.* 2009;4(1):44-57.

11. Gibellini D, Re MC, Ponti C, et al. HIV-1 Tat protein concomitantly down-regulates apical caspase-10 and up-regulates c-FLIP in lymphoid T cells: a potential molecular mechanism to escape TRAIL cytotoxicity. *J Cell Physiol.* 2005 Jun;203(3):547-56.

Supplementary Table 1. Primers adopted for RT-qPCR analysis

Name	Sequence (5'→3')	Position	T_m (°C)	Amplicon size
CD93-F1	TTCCAGACCACCAGTTCCTC	761-780	58,9	85 bp
CD93-R1	TCTCGTCCTTGTCACCTTCC	845-826	59	
CXCL16- F1	TTCCTATGTGCTGTGCAAGAG	1255- 1275	59	77 bp
CXCL16- R1	CAGGTATATAATGAACCGGCAGA	1331- 1309	60	
GRASP- F1	TGTCTGCCGAGTTCATGAGT	458 - 477	59	89 bp
GRASP- R1	CCACATTCAGGCCATTGAC	528 - 546	59	

Supplementary Table 2. Adverse events (Number of events)

Event type/involved apparatus	Adverse Event	Grade 1-2	Grade 3-4	Total
Bleeding	CNS hemorrhage	0	2	2
Bleeding	Bleeding not otherwise specified	2	0	2
Bleeding	Epistaxis	1	0	1
Bleeding	Ematuria	1	0	1
Cardiac	Heart failure	0	3	3
Cardiac	Atrial fibrillation	4	2	6
Cardiac	QTc prolonged	0	1	1
Cardiac	Valve disease	1	0	1
Cardiac	Sinus bradycardia	1	0	1
Cardiac	Hypotension	1	0	1
Cardiac	Supraventricular tachycardia	1	0	1
Cardiac	Palpitations	1	0	1
Hepatic	Alanine aminotransferase increased	3	3	6
Hepatic	Hypoalbuminemia	7	2	9
Hepatic	GGT increased	2	2	4
Hepatic	Fibrinogen decreased	6	1	7
Hepatic	Alkaline phosphatase increased	3	0	3
Hepatic	Bilirubin increased	3	0	3
Hepatic	Prolonged partial thromboplastin time(PTT)	1	0	1
Gastro-Intestinal	Diarrhea	9	1	10
Gastro-Intestinal	Nausea	4	0	4
Gastro-Intestinal	Abdominal pain	3	0	3
Gastro-Intestinal	Costipation	2	0	2
Gastro-Intestinal	Serum amylase increased	1	0	1
Gastro-Intestinal	Gastric perforation	1	0	1
Gastro-Intestinal	Vomiting	1	0	1
Gastro-Intestinal	Anorexia	1	0	1
Hematological	Anemia	1	3	4
Hematological	Neutropenia	1	25	26
Hematological	Thrombocytopenia	4	18	22
Infective	Pneumonia	0	8	8
Infective	Neutropenic fever	0	5	5
Infective	Respiratory failure	0	4	4
Infective	Bacterial infection	1	2	3
Infective	Bronchiolitis obliterans with organizing pneumonia (BOOP)	0	2	2
Infective	Skin infection	1	1	2
Infective	Urinary sepsis	0	1	1
Infective	Herpes	5	0	5
infective	Fever (sepsis, FUO)	13	2	15
Infective	Dental granuloma	1	0	1

Infective	Pharyngitis	1	0	1
Infective	Rhinitis infective	1	0	1
Infective	Oral fungal Infections	1	0	1
Infective	Urinary infection	1	0	1
Metabolic abnormalities	Hyperglycemia	8	3	11
Metabolic abnormalities	Hypokalemia	5	2	7
Metabolic abnormalities	Hyperkalemia	4	0	4
Metabolic abnormalities	Hypoglycemia	3	0	3
Metabolic abnormalities	Hypocalcemia	2	0	2
Metabolic abnormalities	Hyperuricemia	1	0	1
Metabolic abnormalities	Hypomagnesemia	1	0	1
Skin	Dermatitis	4	0	4
Skin	Erythema	2	0	2
Urinary	Urinary tract obstruction	0	1	1
Urinary	Acute kidney disease	0	1	1
Urinary	Renal calculi	0	1	1
Urinary	Dysuria	2	0	2
Other	Tremor	2	0	2
Other	Asthenia	5	1	6
Other	Edema	10	1	11
Other	Syncope	0	1	1
Other	Fatigue	2	0	2
Other	Cough	2	0	2
Other	Weight gain	1	0	1
Other	Low back pain	1	0	1
Other	Angioedema	1	0	1
Other	Nocturia	1	0	1

Supplementary Table 3. Genes differentially expressed in cases achieving a CR or not (No response, NR)

O_transcript_cluster_id	p	FC (abs)	Regulation in CR	gene_assignment
16652879	0,002376404	3,4352016	up	---
16655051	1,12E-04	2,6000152	up	---
16655317	0,004603002	3,423703	up	---
16655581	0,006609067	2,4986773	up	---
16656679	0,003885245	2,079808	up	---
16656705	0,003668856	2,0377338	up	---
16657055	0,002807454	2,6132493	up	---
16657171	0,007939863	2,1720736	up	---
16657183	0,009597513	2,007272	up	---
16663804	8,29E-04	5,4759154	up	---
16693406	0,00304545	3,8666754	up	---
16694611	0,003975116	2,045289	up	---
16740559	1,95E-04	2,9054914	up	---
16755536	6,99E-04	5,6605444	up	---
16764077	0,008208292	2,2203019	up	---
16771311	9,12E-04	2,839953	up	---
16771436	0,004329872	2,9540644	up	---
16771442	4,30E-04	2,1653857	up	---
16835626	0,005619052	2,9385312	up	---
16835631	0,005690353	2,812134	up	---
16875414	5,21E-04	3,0127006	up	---
16880240	0,0049813	3,0881195	up	---

16889711	0,0059829 43	2,95039 94	up	---
16900496	0,0010373 58	2,53521 1	up	---
16930144	0,0070095 1	5,04259 2	up	---
16971429	7,30E-04	3,00776 08	down	---
16971430	0,0022527 79	2,37170 1	down	---
16977343	1,27E-04	2,56586 05	up	---
17006293	7,74E-04	3,16751 84	up	---
17010539	0,0067805 17	2,42573	down	---
17017202	0,0040038 67	2,14912 92	up	---
17061545	0,0084529 13	4,0636	up	---
17079417	7,74E-04	2,13967	down	---
17124298	0,0030440 95	2,97932 89	up	---
17124300	0,0045646 77	3,78725 58	up	---
16875461	0,0030981 95	4,99077 6	up	<i>AC008984.2</i>
16982047	0,0099579 2	3,01425 43	up	<i>ACSL1</i>
16719802	0,0023933 11	2,00101 1	up	<i>ADAM8</i>
16701238	0,0068491 16	2,59375 45	down	<i>AKT3</i>
16757160	0,0033445 7	2,32356 43	up	<i>ALDH2, RP11-162P23.2</i>
16773662	0,0059496 11	2,80884 3	up	<i>ALOX5AP</i>
16716341	0,0018757 36	2,33546 69	up	<i>ANKRD22</i>
16801473	0,0063002 11	9,20213 5	up	<i>AQP9</i>
16749423	0,0068134 54	2,20451 71	down	<i>ARNTL2</i>
16983451	0,0027073 05	4,27866 94	up	<i>BASPI</i>
16812344	5,66E-04	4,34772 35	up	<i>BCL2A1</i>
16962584	0,0070894 09	3,20678 26	up	<i>BCL6</i>
16965252	0,0019060	2,15280	up	<i>BST1</i>

	71	46		
16715228	2,68E-04	2,81109 14	up	<i>C10orf54</i>
16668702	0,0034937 27	2,09893 75	up	<i>C1orf162</i>
16863589	5,60E-04	7,19104 7	up	<i>C5AR1</i>
17093042	0,0091468 16	2,41993 71	up	<i>C9orf72</i>
16848619	0,0034800 07	2,06647 44	up	<i>CD300LF</i>
16830577	0,0082926 94	2,02370 67	up	<i>CD68, SNORA67</i>
16944618	0,0015109 28	3,53439 93	up	<i>CD86</i>
16917859	9,73E-05	4,79436 8	up	<i>CD93</i>
16914812	0,0066408 13	2,08234 4	up	<i>CEBPB</i>
16931957	0,0099426 82	2,40726 9	up	<i>CECR1</i>
17110463	0,0013828 82	2,80338 64	up	<i>CFP</i>
16719217	0,0084556 5	3,81461 43	up	<i>CHST15</i>
16747969	8,70E-04	5,50754 6	up	<i>CLEC4D</i>
16760928	0,0099395 34	5,54163 84	up	<i>CLEC4E</i>
16767335	0,0040787 57	3,07822 13	up	<i>CPM</i>
17115850	0,0064935 12	3,03910 26	up	<i>CSF2RA</i>
16812245	0,0014365 9	2,24610 9	up	<i>CTSH</i>
16692834	0,0029839 82	3,05325 84	up	<i>CTSS</i>
16840113	0,0086970 65	3,92212 96	up	<i>CXCL16</i>
17102538	0,0015077 26	4,09167 86	up	<i>CYBB</i>
16929741	0,0049009 81	2,76003 84	up	<i>CYTH4</i>
16766578	0,0091790 18	2,08341 53	up	<i>DDIT3</i>
17074331	0,0067227 26	7,77238 23	up	<i>DEFA3</i>
17020317	0,0030265 57	2,78100 9	down	<i>DST</i>
16807763	3,29E-04	2,06713	up	<i>EHD4</i>

		58		
16857519	0,0081303 67	2,93943 45	up	<i>EMR1</i>
16869666	0,0060276 35	5,94399 8	up	<i>EMR3</i>
16707791	0,0043423 75	2,92764 04	up	<i>ENTPD1</i>
16865540	0,0096429 65	2,92212 34	up	<i>FCAR</i>
16672838	0,0017272 39	3,17138 8	up	<i>FCERIG</i>
17099707	0,0067466 98	3,07187 22	up	<i>FCN1</i>
16749782	0,0031376 53	2,53629 73	up	<i>FGD4</i>
16684056	0,0048972 49	2,49461 32	up	<i>FGR</i>
16874945	0,0089817 2	3,95025 16	up	<i>FPR1</i>
16856803	0,0023690 53	2,51882 4	up	<i>GADD45B</i>
16751420	0,0084058 44	2,11615	up	<i>GRASP</i>
16765606	0,0025959 34	3,21147 2	up	<i>GTSF1</i>
16912472	0,0098819 74	2,50602 08	up	<i>HCK</i>
17040665	0,0068008 18	2,13403 68	up	<i>HCP5</i>
17003124	0,0012642 44	3,86102 82	up	<i>HK3</i>
16886105	0,0077704 14	2,04680 18	up	<i>HNMT</i>
16711125	0,0014049 03	2,15543 6	up	<i>ID11</i>
17017018	0,0061052 92	2,91069 03	up	<i>IER3</i>
17028909	0,0036915 1	3,09170 1	up	<i>IER3</i>
17031687	0,0036915 1	3,09170 1	up	<i>IER3</i>
17034143	0,0036915 1	3,09170 1	up	<i>IER3</i>
17039184	0,0033356 06	3,03578 95	up	<i>IER3</i>
17041752	0,0036915 1	3,09170 1	up	<i>IER3</i>
17024144	0,0029665 98	2,71056 72	up	<i>IFNGR1</i>
17014364	0,0018820	3,22163	up	<i>IGF2R</i>

	58	65		
16870309	4,28E-04	2,18533 35	up	<i>IL12RB1</i>
17106493	0,0044489 39	3,89812 28	up	<i>IL13RA1</i>
16926813	0,0016007 89	2,65543 27	up	<i>IL17RA</i>
16780917	0,0022009 92	2,91960 57	up	<i>IRS2</i>
16818239	0,0037701 94	3,20514 87	up	<i>ITGAM</i>
16779839	0,0010811 91	3,14697 55	up	<i>KCTD12</i>
16886174	0,0082908 62	3,07962 06	up	<i>KYNU</i>
16801835	0,0056307 94	2,33754 42	up	<i>LACTB</i>
16726065	8,29E-04	3,05081 42	up	<i>LGALS12</i>
16865383	0,0059025 81	3,03221 15	up	<i>LILRA1</i>
16865370	0,0090423 81	2,45815 18	up	<i>LILRA2</i>
16875448	0,0019641 27	4,27342 6	up	<i>LILRA5</i>
17122044	0,0015201 87	5,50044 54	up	<i>LILRB3</i>
17122742	0,0035255 87	2,12803 15	up	<i>LOC729296, MIR646HG, RP5-1043L13.1</i>
17122808	0,0095697 38	2,59200 88	up	<i>LOC729296, MIR646HG, RP5-1043L13.1</i>
16867344	0,0062488 77	2,46807 1	up	<i>LRG1</i>
16870394	9,86E-04	4,03984 2	up	<i>LRRC25</i>
17006666	8,57E-04	2,11553 38	up	<i>LST1</i>
17026272	3,38E-04	2,34921 65	up	<i>LST1</i>
17027801	0,0011032 08	2,25922 73	up	<i>LST1</i>
17030627	4,53E-04	2,34292 46	up	<i>LST1</i>
17033344	0,0011032 08	2,25922 73	up	<i>LST1</i>
17035425	4,53E-04	2,34292 46	up	<i>LST1</i>
17038124	7,41E-04	2,24945 97	up	<i>LST1</i>
17040719	7,17E-04	2,25737	up	<i>LST1</i>

		7		
17011832	0,0095853 98	2,24396 25	up	<i>MARCKS</i>
16823309	0,0058578 67	4,27272 7	up	<i>MEFV</i>
16839177	0,0088829 71	2,42157 9	up	<i>METRNL</i>
16752185	0,0066441 39	3,89149 57	up	<i>METTL7B</i>
17022422	0,0091801 35	2,11178 87	up	<i>MICAL1</i>
16846864	0,0091238 01	2,55283 43	up	<i>MMD</i>
16672362	0,0028697 94	3,68434 14	up	<i>MNDA</i>
16712825	0,0098051 95	2,25179 4	up	<i>MPP7</i>
16738819	0,0086377 26	3,13309 55	up	<i>MS4A6A</i>
16922959	0,0025018 82	2,48243 52	up	<i>MX2</i>
16713318	0,0092611 66	5,25641 87	up	<i>NAMPT, NAMPTL</i>
17046911	0,0094047 09	2,48312 38	up	<i>NCF1B</i>
16697095	0,0098626 94	3,31942 13	up	<i>NCF2</i>
16935607	0,0065371 25	2,57290 9	up	<i>NFAM1</i>
16875219	2,28E-04	4,18633 17	up	<i>NLRP12</i>
16875262	0,0062109 23	2,15923 38	up	<i>OSCAR</i>
16660059	0,0018353 84	3,73894 88	up	<i>PADI4</i>
16898326	0,0039953 97	3,57626 9	up	<i>PEL1I</i>
16702175	0,0077439 37	2,92988 13	up	<i>PFKFB3</i>
16761726	0,0038438 64	4,45729 64	up	<i>PLBD1</i>
16664005	0,0062805 48	2,44354 1	up	<i>PLK3</i>
16685779	0,0033094 1	2,23467 3	up	<i>PPT1</i>
16920047	0,0094795 16	2,19868 45	up	<i>PREX1</i>
16710548	0,0094675 28	2,06349 87	up	<i>PTPRE</i>
16724633	0,0071303	2,92560	up	<i>PTPRJ</i>

	78	05		
16916901	0,0071564 35	2,07889 06	up	<i>RASSF2</i>
17120402	0,0056721 2	2,37279 32	up	<i>RP11-428P16.2, ZNF532</i>
16916485	0,0059698 1	2,57776 43	up	<i>RP4-576H24.2, SIRPD</i>
16876764	0,0063401 33	2,36943 72	down	<i>RSAD2</i>
16693409	0,0029576 4	6,38270 76	up	<i>S100A12</i>
16693414	0,0037979 88	2,92035 84	up	<i>S100A8</i>
16671139	0,0018447 41	3,55374 46	up	<i>S100A9</i>
17102129	0,0078739 91	2,24310 76	up	<i>SATI</i>
16969558	0,0019957 47	2,59710 26	up	<i>SGMS2</i>
17122174	0,0025630 17	2,30487 8	up	<i>SIGLEC10, SIGLEC11, SIGLEC16</i>
16864639	0,0025675 9	3,64281 73	up	<i>SIGLEC9</i>
16910728	3,14E-04	2,35380 74	up	<i>SIRPA</i>
17049522	0,0030196 87	2,35989 83	up	<i>SLC12A9</i>
16738897	0,0045669 08	2,22870 95	up	<i>SLC15A3</i>
16839019	0,0060729 45	2,19013 02	up	<i>SLC16A3</i>
16984056	0,0020258 31	2,03324 03	up	<i>SLC1A3</i>
16760868	0,0013093 62	3,34798 77	up	<i>SLC2A3</i>
16768923	0,0042989 24	2,93541 5	up	<i>SLC9A7P1</i>
16919547	0,0080839 94	4,04251 86	up	<i>SLPI</i>
16977986	0,0069980 3	2,99287 99	down	<i>SNCA</i>
16815914	0,0044731 68	2,34118 6	up	<i>SNN</i>
17044442	0,0096502 84	2,13654	up	<i>SNX10</i>
16690566	0,0059302 51	3,21025 68	up	<i>SORT1</i>
17013279	0,0016463 94	2,91561 44	up	<i>STX11</i>
16661497	0,0059810	2,21554	up	<i>THEMIS2</i>

	39	66		
16975213	0,0051466 25	3,15827 6	up	<i>TLR1</i>
16699634	0,0037880 74	3,52253 87	up	<i>TLR5</i>
17101537	0,0062915 9	4,63175 44	up	<i>TLR8</i>
16980716	0,0074309 47	2,26815 77	up	<i>TMEM154</i>
17004859	0,0014265 97	2,35814 79	up	<i>TMEM170B</i>
17012946	0,0073455 75	3,15011 84	up	<i>TNFAIP3</i>
16659238	0,0074073 52	2,45842 81	up	<i>TNFRSF1B</i>
16776339	0,0070666 07	2,05908 47	up	<i>TNFSF13B</i>
17097653	0,0023086 3	4,24717 04	up	<i>TNFSF8</i>
16871546	0,0016301 52	2,92685 2	up	<i>TYROBP</i>
16710900	0,0096621 57	2,40909 5	up	<i>VENTX</i>
17023707	0,0014484 43	6,75556 23	up	<i>VNN1</i>
17023736	0,0073884 75	4,96664	up	<i>VNN2</i>
16818431	3,11E-04	2,53822 68	up	<i>ZNF267</i>
16765542	0,0035907 36	3,18594 31	up	<i>ZNF385A</i>

Supplementary Table 4. GSEA of genes differentially expressed in cases achieving or not a CR.

Top 10 gene sets for Gene Ontology Biological Processes, Oncogenic Signatures and Curated Gene sets are shown.

Gene Set Name	# Genes in Gene Set (K)	# Genes in Overlap (k)	k/K	p-value	FDR q-value
DEFENSE RESPONSE	270	19	0,07 04	1,56E -20	1,29E- 17
IMMUNE SYSTEM PROCESS	332	13	0,03 92	3,64E -11	1,50E- 08
IMMUNE RESPONSE	235	11	0,04 68	1,88E -10	5,17E- 08
SIGNAL TRANSDUCTION	1634	23	0,01 41	9,80E -10	2,02E- 07
RESPONSE TO STRESS	508	13	0,02 56	6,34E -09	1,05E- 06
RESPONSE TO EXTERNAL STIMULUS	312	10	0,03 21	4,75E -08	6,52E- 06
RESPONSE TO WOUNDING	190	8	0,04 21	1,38E -07	1,58E- 05
INFLAMMATORY RESPONSE	129	7	0,05 43	1,54E -07	1,58E- 05
RESPONSE TO OTHER ORGANISM	83	6	0,07 23	2,23E -07	2,05E- 05
VERHAAK AML WITH NPM1 MUTATED UP	183	31	0,16 94	2,19E -45	1,03E- 41
MCLACHLAN DENTAL CARIES UP	253	29	0,11 46	2,95E -37	6,97E- 34
JAATINEN HEMATOPOIETIC STEM CELL DN	226	27	0,11 95	3,28E -35	5,17E- 32
MCLACHLAN DENTAL CARIES DN	245	24	0,09 8	3,26E -29	3,85E- 26
RUTELLA RESPONSE TO CSF2RB AND IL4 DN	315	24	0,07 62	1,49E -26	1,41E- 23
CHEN METABOLIC SYNDROM NETWORK	1210	36	0,02 98	2,10E -25	1,65E- 22
BROWN MYELOID CELL DEVELOPMENT UP	165	19	0,11 52	1,14E -24	7,72E- 22
GAL LEUKEMIC STEM CELL DN	244	21	0,08 61	1,90E -24	1,03E- 21
TAKEDA TARGETS OF NUP98 HOXA9 FUSION 8D DN	205	20	0,09 76	1,96E -24	1,03E- 21
RUTELLA RESPONSE TO HGF VS CSF2RB AND IL4 UP	408	24	0,05 88	7,28E -24	3,44E- 21
RPS14 DN.V1 UP	192	21	0,10 94	1,10E -26	2,07E- 24
HOXA9 DN.V1 UP	194	13	0,06 7	4,05E -14	3,82E- 12

STK33 UP	293	13	0,04 44	7,68E -12	4,84E- 10
STK33 SKM UP	290	12	0,04 14	1,13E -10	5,33E- 09
STK33 NOMO UP	294	11	0,03 74	1,99E -09	7,52E- 08
CAMP UP.V1 DN	200	8	0,04	2,04E -07	6,44E- 06
TBK1.DF UP	290	8	0,02 76	3,32E -06	8,96E- 05
AKT UP.V1 UP	172	6	0,03 49	1,56E -05	3,69E- 04
AKT UP MTOR DN.V1 UP	184	6	0,03 26	2,28E -05	4,80E- 04
PTEN DN.V1 UP	191	6	0,03 14	2,82E -05	4,98E- 04
Net-related signature					

Supplementary Table 5. *CD93*, *RASGRP63* and *CXCL16* expression evaluated by qPCR (DCt method)

	$\Delta Ct(\text{GRASP65-GAPDH})$	$\Delta Ct(\text{CXCL16-GAPDH})$	$\Delta Ct(\text{CD93-GAPDH})$
T test: CR vs no CR	0,10	0,01	0,003
Median, CR	-1,07	-2,01	-5,51
Median, NR	1,01	1,46	-3,44
STDV CR	2,39	2,60	1,59
STDV NR	1,89	2,11	1,56