

Supplemental Data

Supplemental Table 1: AL patient recruitment by center, with relevant AL principal investigator

	Total N patients (N=41)
Center name (Leukemia PI)	
03 – CHU Lille, France (Quesnel)	14
01 – Hôpital Saint Louis, Paris, France (Dombret)	9
06 – CHU Lyon-Sud, France (Michallet)	5
09 – Institut Paoli Calmettes, Marseille, France (Vey)	4
10 – CHU Toulouse, France (Recher)	4
11 – Princess Margaret Cancer Center, Toronto, Canada (Yee)	3
08 – Royal Marsden Hospital, London, UK (Taussig)	2

Supplemental Table 2: 42-gene panel content

ASXL1 ex11-12
BCOR ex2-15
BCORL1 ex2-12
BRAF ex15
CALR ex9
CBL ex8-9
CEBPA ex1
CSF3R ex14
DNMT3A ex 2-23
ETV6 ex1-8
EZH2 ex 2-20
FBWX7 ex9-12
FLT3 ex14-15-20
GATA1 ex2
GATA2 ex2-6
IDH1 ex4
IDH2 ex4
JAK2 ex12-14
JAK3 ex13
KIT ex 8-11,17
KRAS ex2-3
MPL ex10
NIPBL ex3-47
NOTCH1 ex26-34
NPM1 ex10
NRAS ex2-3
PHF6 ex2-10
PTEN ex5-7
PTPN11 ex3, 13
RAD21 ex2-14
RUNX1 ex 3-8
SETBP1 ex4
SF3B1 ex 13-18
SMC1A ex1-25
SMC3 ex1-29
SRSF2 ex1
STAG2 ex3-35
TET2 ex 3-11
TP53 ex 2-11
U2AF1 ex 2-6
WT1 ex7-9
ZRZS2 ex1-11

Supplemental Table 3: Characteristics of patients with standard responses

	Patient 1 (CR)	Patient 2 (CRi)	Patient 3 (CR)
OTX015 dose level	40 mg QD	80 mg QD	160 mg QD
Age/gender	74/F	72/M	62/M
Significant prior history / known pre-leukaemic condition	Monoclonal IgM-induced neuropathy controlled with 9 cycles of RFC	MDS treated with azacitidine	Inv(16) AML controlled with standard induction therapy and high-dose busulfan/ASCT
Treated condition	Post-treatment AML	Post-MDS AML	Post-treatment RAEB
Prior systemic therapy for the treated condition	LDAC	Idarubicin/cytarabine investigational agent	Azacitidine
Bone marrow blasts at baseline	94%	85%	14%
Presence of peripheral blood blasts at baseline	YES	YES	NO
Myelodysplastic features	YES	YES	YES
Karyotype	Normal	Normal	Complex; without Inv(16)
Molecular biology	No abnormality	NPM1 <i>mut</i> * <i>flt3 wt</i>	P53 <i>mut</i>

ASCT: autologous stem cell transplantation; CR, complete remission; CRi, complete remission with incomplete recovery of platelets; LDAC: low-dose cytarabine; MDS: myelodysplastic syndrome; *mut*: mutated; NPM1: nucleophosmin 1 gene; *wt*: wild type; RAEB: refractory anaemia with excess of blasts; RFC: rituximab, fludarabine, cyclophosphamide.

* NPM1/ABL1 mRNA ratio 1937% at baseline; dropped to 0.039% at the end of cycle 1.