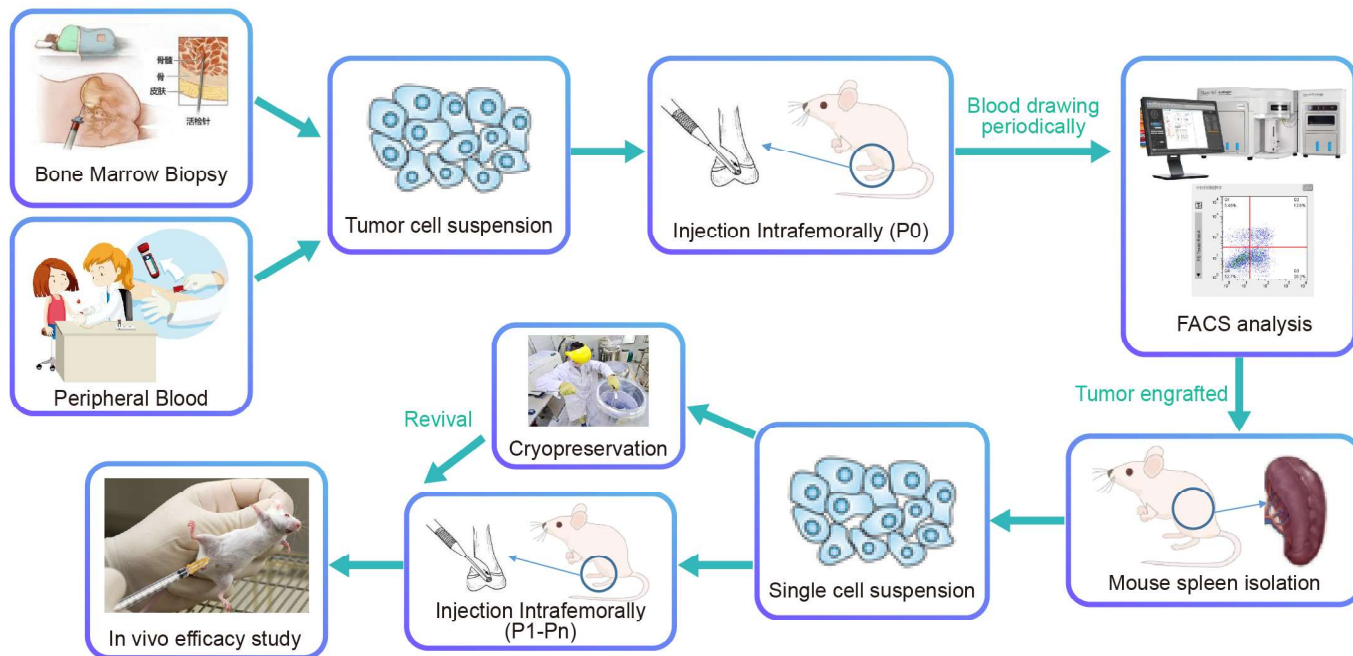


Patient derived orthotopic xenografts model of liquid tumor

Flowchart of PDOX establishment using AML/ALL samples

LIDE developed a novel PDOX platform for liquid tumor establishment, which enables orthotopic injection of cancer cell suspension prepared from patients peripheral blood/bone marrow intrafemorally into the mice bone marrow, and engraftment of PDOX using mice spleen as tumor source for further in vitro/in vivo assay.



The list of liquid tumor models established by LIDE

Model ID	Sex	Age	PDX pathology	PDX s.c.	PDOX i.f.
LD1-0041-362047	Male	51	ALL	Available	Available
LD1-0041-362073	Male	64	ALL	Available	Available
LD1-0041-362356	Male	53	ALL	Available	Available
LD1-0041-362478	Male	15	ALL	Available	Available
LD1-1041-362519	Female	38	ALL	TBD	Available
LD1-0041-362021	Male	32	ALL	TBD	Available
LD1-0040-361280	Female	38	AML	Available	Available
LD1-0040-361293	Female	61	AML	Available	Available
LD1-0040-362349	Male	23	AML	Available	Available
LD1-0040-362384	Male	59	AML	TBD	Available
LD1-0040-362030	Female	56	AML	TBD	Available
LD1-0040-361780	Male	49	AML	TBD	Available
LD1-0040-362224	Male	75	AML	TBD	Available
LD1-0040-362369	Male	57	AML	Available	Available
LD1-0040-362393	Female	57	AML	Available	Available
LD1-0040-362499	Male	68	AML	TBD	Available
LD1-0040-362575	Female	31	AML	Available	Available
LD1-0026-362219	Male	24	Burkitt's lymphoma	Available	TBD
LD2-0026-200614	Male	/	CLL transit to DLBCL	Available	TBD
LD1-0026-362314	Male	51	Mantle cell lymphoma	Available	TBD
LD1-0029-361915	Male	62	Multiple myeloma	Available	TBD
LD1-0029-361847	Male	54	Multiple myeloma	Available	TBD
LD1-0006-370728	Male	68	Multiple myeloma	Available	TBD

Validation and Application of PDOX in liquid tumor

1

FACS detection: the corresponding relationship of clinical and PDX

Gene	Clinical result	PDX result	
		Blood	Spleen
CD45	+	+	+
CD33	+	+	+
MPO	+	+	+
CD56	+	+	+
CD117	+	+	+

2

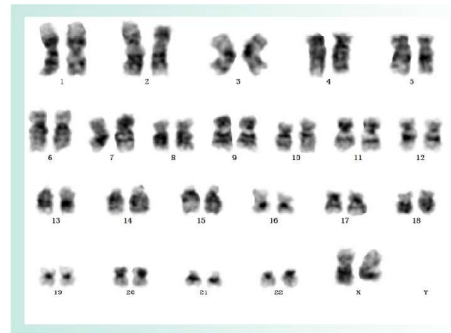
Gene detection: the corresponding relationship of clinical and PDX

Gene	Clinical result	PDX result				
		WES_Mut(AF)	RNA_Mut(AF)	RNA_TPM	RNA_TPM_zscore_GTE _x	RNA_TPM_zscore_TCGA
c-kit/D816V	-	-	-	12.5	4.200862288	-1.086434655
CEBPA	-	-	-	117.22	1.922675063	0.460406123
NPM1exon12A	+	Trp288fs(0.312)	Trp288fs(0.355)	1558.02	4.793047232	3.38832293
FLT3/ITD	-	-	-	146.78	2.790451315	0.758331842

3

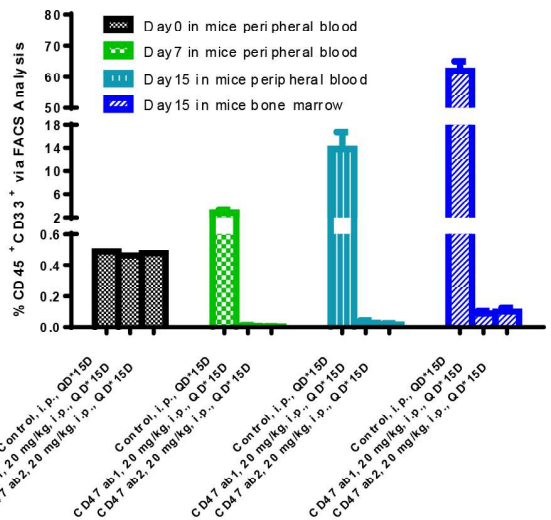
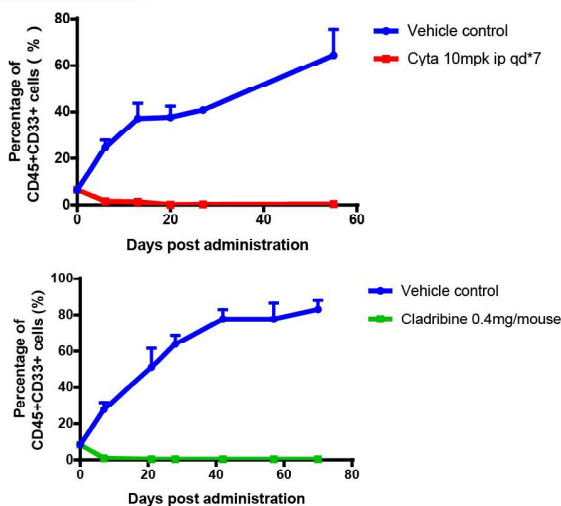
detection of PDX chromosome

The results of cell karyotype analysis showed that the patient's karyotype was normal and the expression was 46,XX[CP20]



4

verification of SOC: the correlation between clinical medication history and PDX



Cytarabine or cladribine demonstrated completely tumor elimination in an AML PDX.

AML PDX model was inoculated orthotopically, and CD47 abs showed anti-cancer effect by completely inhibiting CD45+CD33+ cells in mice.