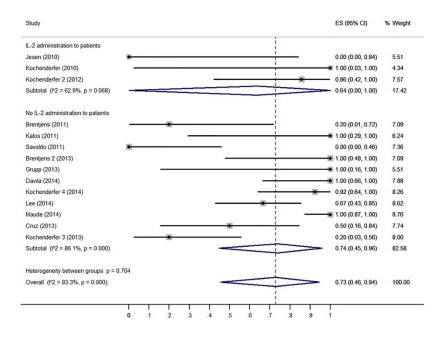
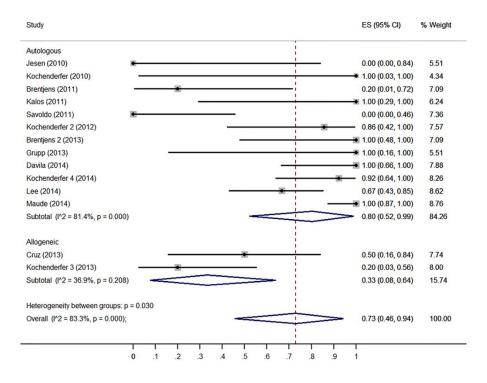
## Efficiency of CD19 Chimeric Antigen Receptor-Modified T Cells for treatment of B Cell Malignancies in Phase I Clinical Trials: a Meta-Analysis

## **Supplementary Material**



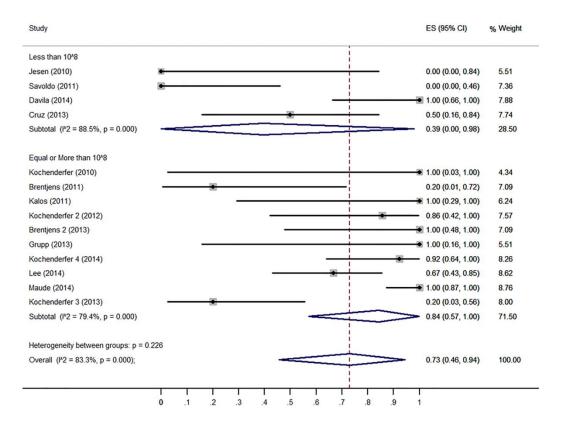
Supplemental Figure 1: Forest plot for response rate and confidence intervals in patients with/without IL-2 administration to patient in the meta-analysis.



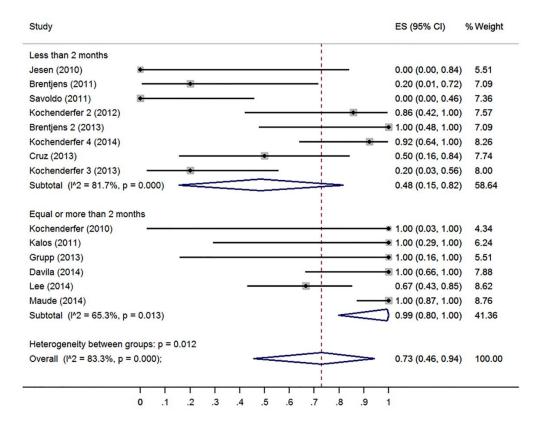
Supplemental Figure 2: Forest plot for response rate and confidence intervals in patients received different original T cell in the metaanalysis

Brentjens (2011)       Image: Constraint of the second secon	. ,	% Weight
Kochenderfer (2010)       Image: Constraint of the second se		
Brentjens (2011)       Image: Constraint of the second secon	0.00 (0.00, 0.84)	) 5.51
Kochenderfer 2 (2012)       Image: Constraint of the second	• 1.00 (0.03, 1.00)	) 4.34
Brentjens 2 (2013) Davila (2014) Cruz (2013) Subtotal (I^2 = 71.9%, p = 0.002) Less than 2 weeks Kalos (2011) Savoldo (2011) Grupp (2013) Kochenderfer 4 (2014) Lee (2014) Maude (2014) Kochenderfer 3 (2013) Subtotal (I^2 = 89.3%, p = 0.000)	0.20 (0.01, 0.72)	) 7.09
Davila (2014) Cruz (2013) Subtotal (I^2 = 71.9%, p = 0.002) Less than 2 weeks Kalos (2011) Savoldo (2011) Grupp (2013) Kochenderfer 4 (2014) Lee (2014) Maude (2014) Kochenderfer 3 (2013) Subtotal (I^2 = 89.3%, p = 0.000)	- 0.86 (0.42, 1.00)	) 7.57
Cruz (2013) Subtotal (I^2 = 71.9%, p = 0.002) Less than 2 weeks Kalos (2011) Savoldo (2011) Grupp (2013) Kochenderfer 4 (2014) Lee (2014)	1.00 (0.48, 1.00)	) 7.09
Subtotal (I <sup>A</sup> 2 = 71.9%, p = 0.002)	1.00 (0.66, 1.00)	) 7.88
Subtotal (I <sup>A</sup> 2 = 71.9%, p = 0.002)	0.50 (0.16, 0.84)	) 7.74
Kalos (2011)	- 0.74 (0.35, 0.99)	) 47.24
Savoldo (2011) Grupp (2013) Kochenderfer 4 (2014) Lee (2014) Maude (2014) Kochenderfer 3 (2013) Subtotal (I^2 = 89.3%, p = 0.000) Subtotal (I^2 = 89.3%, p = 0.000)		
Savoldo (2011) Grupp (2013) Kochenderfer 4 (2014) Lee (2014) Maude (2014) Kochenderfer 3 (2013) Subtotal (I^2 = 89.3%, p = 0.000) Subtotal (I^2 = 89.3%, p = 0.000)	1.00 (0.29, 1.00)	) 6.24
Kochenderfer 4 (2014)     Image: Constraint of the second se	0.00 (0.00, 0.46)	7.36
Lee (2014) Maude (2014) Kochenderfer 3 (2013) Subtotal (I^2 = 89.3%, p = 0.000)	1.00 (0.16, 1.00)	) 5.51
Maude (2014) Kochenderfer 3 (2013) Subtotal (I^2 = 89.3%, p = 0.000)	- 0.92 (0.64, 1.00)	) 8.26
Kochenderfer 3 (2013) Subtotal (I^2 = 89.3%, p = 0.000)	0.67 (0.43, 0.85)	8.62
Subtotal (I^2 = 89.3%, p = 0.000)	1.00 (0.87, 1.00)	8.76
	0.20 (0.03, 0.56)	) 8.00
Heterogeneity between groups; p = 0.969	0.72 (0.33, 0.99)	) 52.76
Overall (I <sup>2</sup> = 83.3%, p = 0.000);	0.73 (0.46, 0.94)	) 100.00
(12 - 00.00), p - 0.000),	0.70 (0.40, 0.04)	, 100.00
	1	

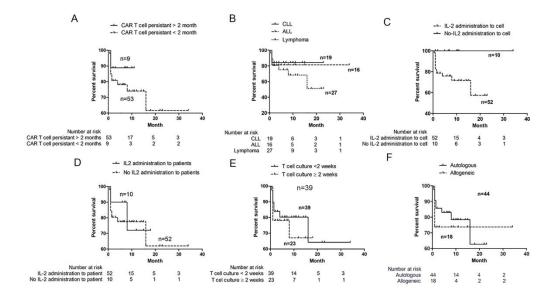
Supplemental Figure 3: Forest plot for response rate and confidence intervals in patients with different T cell culture time in the metaanalysis.



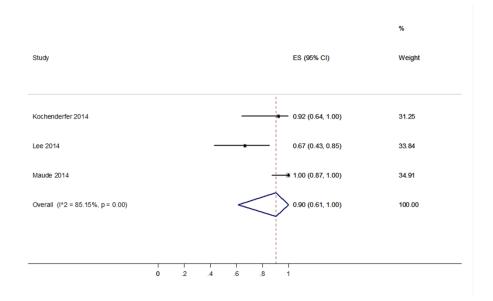
Supplemental Figure 4: Forest plot for response rate and confidence intervals in patients with different infused CAR T+ cell number in the meta-analysis.



Supplemental Figure 5: Forest plot for response rate and confidence intervals in patients with different CAR T+ cell persistence time in the meta-analysis.



Supplemental Figure 6: Progression-free survival (PFS) curves.



Supplemental Figure 7: Forest plot for response rates and confidence intervals in 3 studies with more than ten patients.

## Supplemental Table 2: Meta-regression of the association between

## lymphodepletion regimens and clinical outcomes

Lymphodepletion regimen	Co-efficiency.	95% CI	P value
Fludarabine + IL-2	1.00	-0.31, 2.31	0.11
Cyclophosphamide + Fudarabine + IL-2	-0.12	-1.60, 1.42	0.86
Cyclophosphamide	-0.20	-1.61-1.21	0.740
Cyclophosphamide + Fudarabine	-0.13	-1.48, 1,21	0.82
Pentostatin + cyclophosphamide	NA <sup>*</sup>	NA <sup>*</sup>	$NA^*$

Note: <sup>\*</sup>There was only one trail in "Pentostatin + cyclophosphamide" group. The Meta regression can't show the pooled regression results for this group.