

Patient-tailored adoptive immunotherapy with EBV-specific T cells from related and unrelated donors

Supplemental Table 1A

	No.	age at 1 <sup>st</sup> transfer	Gender	SC donor / organ	underlying disease	reason for EBV-CTL transfer	histologic features of PTLD	previous therapy of EBV/PTLD	change in immunosuppression	anti-EBV/PTLD therapy in parallel to or after EBV-CTL transfer	EBV-CTL donor	Search - donor identification (days)	Donor identification - Manufacturing (days)	CD3+ cell count of 1 <sup>st</sup> transfer (per kg BW)	total CD3+ cell counts of all transfers (per kg BW)	purity (% CD3+ IFN-γ+ T cells)	number of transfers
HSCT patient; EBV-CTL from SCD (la)	16	22	m	MUD	relapsed AML	PTLD	Hodgkin-like	rit	no	none	SCD	-	40	2.50E+04	2.50E+04	25.0	1
	17	54	m	MSD	multiple myeloma	PTLD	no biopsy	n.a.	n.a.	n.a.	SCD	-	-	3.04E+04	3.04E+04	17.7	1
	18	73	m	MUD	MDS	PTLD	DLBCL	rit, ster, ofatumumab	no	none	SCD	-	2	2.22E+05	2.22E+05	38.8	1
	19	66	f	MUD	AML	PTLD	classical Hodgkin's disease	rit, CHOP	stop of MMF and calcineurin inhibitor	none	SCD	-	2	1.21E+05	1.21E+05	42.1	1
	20	65	m	MUD	multiple myeloma	PTLD	no biopsy	rit	everolimus instead of calcineurin inhibitor	none	SCD	-	5	2.50E+04	2.50E+04	43.3	1
	21	22	m	haplo	AML	PTLD	polymorphic PTLD	rit		rit	SCD	-	14	2.50E+04	5.00E+04	29.4	2
	22	59	f	MUD	MDS	PTLD	CD30 and EBV positive PTLD	rit	no	none	SCD	-	7	5.00E+04	7.07E+04	42.1	2
	23	55	m	MUD	NKT-NHL (EBV positive)	progression of EBV-positive NKT-NHL	-	-	stop of immunosuppression	pembrolizumab	SCD	-	-	5.00E+04	5.00E+04	40.5	1
	24	28	f	MUD	EBV-associated lymphoproliferation	EBV-associated lymphoproliferation, severe/uncontrolled EBV-infection, EBV encephalitis	-	ganciclovir, aciclovir, bort, rit	taper and stop of everolimus	rit	SCD	-	-	1.00E+04	1.40E+05	25.8	5 (14)
	25	44	m	haplo	aplastic anemia + PNH	PTLD	non-destructive PTLD, plasmacytic hyperplasia	rit, 1x EBV-CTL	no	none	SCD	-	4	2.50E+04	2.50E+04	34.1	1
	26	62	m	MUD	MDS-MPN overlap	PTLD	DLBCL	rit	yes, details n.a.	mtx + rit (OPTIMAL protocol)	SCD	-	-	2.50E+04	5.00E+04	33.4	2
HSCT patient; EBV-CTL from TPD (lb)	1	52	m	MUD	AML/MDS	PTLD	DLBCL	rit, R-CHOP, bren	no	bren, IVIG	unrel TPD	0	108	1.00E+04	4.24E+04	47.2	3 (6)
	2	58	m	MUD	multiple myeloma	EBV re-activation with necrotizing encephalitis	-	rit	taper and withdrawal of CsA	none	unrel TPD	0	6	1.00E+04	1.09E+04	29.0	2
	3	52	m	MUD	AML/MDS	PTLD	DLBCL	rit, R-CHOP, bren	no	bren, IVIG	unrel TPD	see #1	see #1	1.00E+04	4.24E+04	46.1	3 (6)
	4	68	m	MUD	myelofibrosis	EBV re-activation	-	rit	no	none	unrel TPD	0	12	2.50E+04	2.50E+04	38.6	1
	5	28	f	MUD	AML	PTLD	no biopsy	rit, ster	no	none	unrel TPD	0	1	2.50E+04	2.50E+04	72.8	1
	6	50	f	MUD	AML	EBV re-activation	-	rit	taper and withdrawal of CsA and MMF	none	unrel TPD	3	10	2.51E+04	2.50E+04	72.2	1
	7	12	m	MUD	CMMRD, relapsed T-NHL	PTLD	DLBCL	rit i.v. + i.th., ganciclovir, cpm	taper of ster	ganciclovir	unrel TPD	6	4	5.06E+03	5.00E+03	43.9	1
	8	14	f	MUD	secondary MDS after Ewing sarcoma	PTLD	DLBCL	rit	taper of CsA	bren	unrel TPD	10 (search - manufacturing)		1.00E+04	4.00E+04	30.0	4
	9	65	m	MSD	multiple myeloma	PTLD	monomorphic PTLD	rit, R-CHOP + bort	no	rit, R-CHOP	unrel TPD	2	4	2.50E+04	5.00E+04	76.8	2
	10	38	m	MUD	relapsed AML	PTLD	B-NHL with plasmacytic differentiation	rit	no	rit	unrel TPD	15	1	2.50E+04	2.50E+04	41.8	1
	11	5	f	MSD	familial HLH	PTLD	DLBCL	rit, foscavir	stop of tac	rit, foscavir, bren	unrel TPD	2	4	2.50E+04	7.50E+04	46.0	3
	12	14	f	MUD	relapsed ALCL	EBV re-activation	-	rit	taper and withdrawal of CsA	none	unrel TPD	4	1	1.00E+04	1.00E+04	39.3	1
	13	40	m	MUD	ALL	PTLD	highly aggressive B-cell lymphoma	rit	no	none	unrel TPD	2	6	1.00E+04	4.00E+04	31.3	4
	14	17	m	MUD	VSAA	PTLD	polymorphic PTLD	rit	sirolimus instead of tac	rit	rel TPD	-	4	2.50E+04	2.50E+04	20.8	1
	15	36	m	MSD	AML	PTLD	polymorphic PTLD	rit, vcr	stop of CsA	bort, bren, nivolumab	rel TPD	-	5	3.69E+04	1.60E+05	58.9	6
SOT patient; EBV-CTL from TPD (li)	27	12	m	kidney	nephronphritis	PTLD	no biopsy	rit, mCOMP	no	rit, bren	rel TPD	-	39	4.17E+04	4.17E+04	22.5	1
	28	10	m	liver	Alagille syndrome	PTLD	monomorphic PTLD with features of DLBCL	rit, intrathecal therapy (rit, cytarabine, mtx, prednisone)	stop of tac and MMF	none	unrel TPD	3	67	2.50E+04	1.25E+05	49.9	5
	29	14	f	heart	dilatative cardiomyopathy	PTLD	DLBCL	rit, mCOMP	everolimus instead of MMF, taper of CsA	none	rel TPD	-	53	1.00E+04	3.00E+04	41.8	3
	30	52	m	liver	alcoholic cirrhosis	PTLD	plasmablastic lymphoma / monomorphic PTLD	VIP prephase, CHOP	stop of ster, taper of tac	none	rel TPD	-	3	2.50E+04	5.00E+04	20.3	2
	31	63	f	kidney	glomerulonephritis	PTLD	small cell B-NHL with partially blastic, partially plasmacytic differentiation	rit, bort, IVIG, R-CHOP-21	taper of CsA	none	unrel TPD	6	20	2.51E+04	1.25E+05	43.1	4
no Tx; EBV-CTL from TPD (lii)	32	47	m	-	EBV-associated Hodgkin lymphoma, EBV-associated lymphoproliferation	EBV-associated lymphoproliferation	-	R-ABVD, R-BEACOPPesk, R-AVD, rit, bren	-	none	rel TPD	-	25	1.00E+04	3.00E+04	51.8	3
	33	6	m	prior to SCT	immunodeficiency (X-MEN syndrome)	chronic EBV infection, EBV-induced hepatitis	-	rit	-	none	rel TPD	-	5	1.00E+04	3.50E+04	58.8	2
	34	32	m	prior to SCT	EBV-associated Hodgkin lymphoma, suspected immunodeficiency	high EBV viral load	-	rit, tocilizumab	-	rit, R-CHOP, bren, nivolumab	rel TPD	-	11	1.50E+04	4.34E+04	42.8	3
	35	23	m	-	EBV-associated Hodgkin lymphoma	EBV-associated refractory Hodgkin lymphoma	-	ABVD, R-ICE, bren-DHAP, irradiation, nivolumab, rit	-	bren, nivolumab	unrel TPD	58	1	2.49E+04	5.00E+04	58.4	2
	36	28	f	prior to SCT	EBV-associated lymphoproliferation	EBV-associated lymphoproliferation, severe/uncontrolled EBV-infection, EBV encephalitis	-	ganciclovir, aciclovir, bort, rit	-	none	unrel TPD	2	1	1.00E+04	1.40E+05	43.5	9 (14)
EBV-CTL not used	37	52	m	auto	EBV-associated Hodgkin lymphoma	EBV-associated lymphoproliferation	-	rit, cpm, ster	-	-	unrel TPD	0	5	n.a.	-	n.a.	0
	38	16	m	MUD	secondary AML after Ewing sarcoma	PTLD	no biopsy	rit	n.a.	-	rel TPD	-	5	2.51E+04	-	39.4	0
	39	2	f	haplo	immunodeficiency (CD27 deficiency)	preemptive therapy, finally not necessary	-	none	-	-	SCD	-	159	2.50E+04	-	39.1	0
	40	6	m	MUD	immunodeficiency (X-MEN syndrome)	chronic EBV infection, EBV-induced hepatitis	-	rit, allogenic SCT	-	-	SCD	-	26	9.55E+03	-	51.5	0

patients with two EBV-CTL manufacturing processes: No. 1 = No. 3; No. 24 = No. 36; No. 33 = No. 40

abbreviations: BW = body weight; rit = rituximab; bren = brentuximab-vedotin; ster = steroids; bort = bortezomib; cpm = cyclophosphamide; vcr = vincristin; mtx = methotrexate; CsA = cyclosporin A; tac = tacrolimus; MMF = mycophenolatmofetil