

REPORT OF THE 403rd CELL EXCHANGE

MARCH 18, 2018

B-cell Lines	547-548
Cells	1609-1612

B-cell Line Exchange #274

The results for B-cell Line Exchange #274 are summarized in Tables 1 - 2 and individual laboratory results reported for each sample are listed in Tables 3 - 8. The samples in this study were generously provided by **Jean-Marie Tiercy, University Hospital of Geneva, and Doug Smith, Baylor University Medical Center, Dallas.**

We would like to acknowledge and thank the labs performing NGS typing for sharing their results and encourage other NGS labs to share their findings. The haplotype frequencies used in this report are from the NMDP Bioinformatics website, <https://bioinformatics.bethematchclinical.org/>.

Ter-547. The consensus type for this sample from a Caucasian donor is DRB1*04:31-DRB1*16:02-DRB4*01:03-DRB5*02:02-DQA1*01:02-DQA1*03:03-DQB1*03:01-DQB1*05:02-DPA1*01:03-DPB1*04:01/A*02:01-A*31:01-B*18:01-B*51:01-C*07:01-C*15:02. One likely association present is DRB1*16:02-DRB5*02:02-DQA1*01:02-DQB1*05:02, observed most recently in Ter 431 (same as Ter 312 and Ter 248). The association of DRB1*16:02-DQB1*05:02 is observed in Caucasians, with HF=0.00121. The other likely association present is DRB1*04:31-DRB4*01:03-DQA1*03:03-DQB1*03:01.

This cell is GE47192, the reference cell for DRB1*04:31. It has been studied several times in the exchange as Ter 463 (2011), Ter 354 (2005), and Ter 287 (2001), as correctly identified by Chen and Rao. In this present typing, the rare DRB1*04:31 allele was assigned by 100% of labs reporting at high resolution. DRB1*16:02 was assigned as the second DRB1 typed, with 12 labs assigning DRB1*16:02:01. The DQ types were reported as DQA1*01:02 (100%), DQA1*03:03 (95%), DQB1*03:01 (100%), and DQB1*05:02 (100%), with 6 labs assigning DQA1*01:02:02 and DQA1*03:03:01. DQB1*03:01:01 was assigned by 9 labs, and DQB1*05:02:01 was assigned by 10 labs. DPA1*01:03 (100%) and DPB1*04:01 (100%) were reported as the DP types, with 5 labs assigning DPA1*01:03:01 and 9 labs assigning DPB1*04:01:01.

The class I types for this sample were reported as A*02:01, A*31:01, B*18:01, B*51:01, C*07:01, and C*15:02. Each were assigned in complete consensus, with 7 labs assigning A*02:01:01 and C*07:01:01, and 8 labs assigning A*31:01:02, B*18:01:01, B*51:01:01, and C*15:02:01.

Ter-548. The consensus type for this sample from a Caucasian donor is DRB1*03:01-DRB1*04:26-DRB3*01:01-DRB4*01:03-DQA1*03:01-DQA1*05:01-DQB1*02:01-DQB1*03:02-DPA1*01:03-DPB1*03:01-DPB1*04:01/A*32:01-A*68:02-B*08:01-B*44:02-C*01:02-C*07:01. This cell is the HLA identical sibling of the reference cell 34299 (same as Ter 423 and Ter 271). Data from family studies reveal the haplotypes in this cell to be A*68:02-B*44:02-C*07:01-DRB1*04:26-DRB4*01:03-DQA1*03:01-DQB1*03:02 and A*32:01-B*08:01-C*01:02-DRB1*03:01-DQA1*05:01-DQB1*02:01. The DRB1*03:01-DQB1*02:01 association present in this cell is the second most common association observed in Caucasians, with HF=0.12872.

This cell was previously typed in the exchange as Ter 366 (2005) and Ter 259 (2000). In this present study, DRB1*04:26 was assigned by 100% of labs reporting at high resolution. DRB1*03:01 (100%) was assigned as the second DRB1 typed, with 10 labs reporting DRB1*03:01:01. The DQA1 types were assigned in complete consensus as DQA1*03:01, DQA1*05:01, DQB1*02:01, and DQB1*03:02. DQA1*03:01:01 and DQA1*05:01:01 were each assigned by 6 labs, while DQB1*02:01:01 and DQB1*03:02:01 were each assigned by 9 labs and 10 labs, respectively. The reported DP types were DPA1*01:03 (100%), DPB1*03:01 (100%), and DPB1*04:01 (100%), with 5 labs reporting DPA1*01:03:01 and 6 labs assigning DPB1*03:01:01 and DPB1*04:01:01.

A*32:01, A*68:02, B*08:01, B*44:02, C*01:02, and C*07:01 were each assigned in complete consensus, with 8 labs assigning A*32:01:01, A*68:02:01, B*08:01:01, and C*01:02:01. B*44:02:01 was assigned by 6 labs, and C*07:01:01 was assigned by 7 labs.

Correction: In the Report of the 401st Cell Exchange, the DPA1 consensus results for Ter-543 (B-cell Line Exchange 272) was listed incorrectly as DPA1*03:01. The correct consensus is DPA1*01:03.

Table 1: Summary of the 274th B-cell Line Exchange

Ter-547

		32 labs High; 30 labs low-DRB1		22 labs High; 23 labs Low-DRB3/4/5		21 labs High; 28 labs Low-DQA1		33 High Labs; 29 labs Low-DQB1		14 High Labs; 13 labs Low-DPA1		28 High Labs; 18 labs Low-DPB1	
			%(n)		%(n)		%(n)		%(n)		%(n)		%(n)
DNA Typing - class II	DRB1*04:31	100(34)	DRB4*01:03:01:01	9 (2)	DQA1*01:02:02	28(6)	DQB1*03:01:01:01	6 (2)	DPA1*01:03:01:02	29(4)	DPB1*04:01:01:01	11(3)	
	DRB1*04	100(30)	DRB4*01:03:01	23(5)	DQA1*01:02	72(15)	DQB1*03:01:01	21(7)	DPA1*01:03:01	7 (1)	DPB1*04:01:01	21(6)	
			DRB4*01:01p	4 (1)	DQA1*01	100(28)	DQB1*03:01:01G	6 (2)	DPA1*01:03	64(9)	DPB1*04:01:01G	3 (1)	
			DRB4*01:03	64(14)			DQB1*03:01	67(22)	DPA1*01	100(13)	DPB1*04:01P	3 (1)	
			DRB4*01	74(17)			DQB1*03(DQ7)	3 (1)			DPB1*04:01	61(17)	
			DRB4*PRESENT	22(5)			DQB1*03	97(28)			DPB1*04(DP401)	56(10)	
			<i>DRB3*PRESENT</i>	4 (1)							DPB1*04	44(8)	
DNA Typing - class II													
DNA Typing - class I													
DNA Typing - class I													
DNA Typing - class I													

Table 2: Summary of the 274th B-cell Line Exchange

Ter-548

DNA Typing - class II		22 labs High; 23 labs Low-DRB3/4/5		22 labs High; 28 labs Low-DQA1		33 High Labs; 29 labs Low-DQB1		14 High Labs; 13 labs Low-DPA1		28 High Labs; 18 labs Low-DPB1		
DNA Typing - class II	34 labs High; 32 labs low-DRB1	%(n)	22 labs High; 23 labs Low-DRB3/4/5	%(n)	22 labs High; 28 labs Low-DQA1	%(n)	33 High Labs; 29 labs Low-DQB1	%(n)	14 High Labs; 13 labs Low-DPA1	%(n)	28 High Labs; 18 labs Low-DPB1	%(n)
	DRB1*03:01:01:01	9 (3)	DRB3*01:01:02:01	13(3)	DQA1*03:01:01	27(6)	DQB1*02:01:01	27(9)	DPA1*01:03:01:02	29(4)	DPB1*03:01:01	21(6)
	DRB1*03:01:01	21(7)	DRB3*01:01:02:02	5 (1)	DQA1*03:01	73(16)	DQB1*02:01:01G	3 (1)	DPA1*01:03:01	7 (1)	DPB1*03:01:01G	7(2)
	DRB1*03:01:01G	6 (2)	DRB3*01:01:02	9 (2)	DQA1*03	100(28)	DQB1*02:01	70(23)	DPA1*01:03	64(9)	DPB1*03:01P	11(3)
	DRB1*03:01	64(22)	DRB3*01:01P	5 (1)			DQB1*02	100(29)	DPA1*01	100(13)	DPB1*03:01	61(17)
	DRB1*03(DR17)	3 (1)	DRB3*01:01	68(15)							DPB1*03	100(18)
	DRB1*03	97(31)	DRB3*01	74(17)								
			DRB3*PRESENT	26(6)								
DNA Typing - class I	32 labs High; 31 labs low-DRB1	%(n)	22 labs High; 23 labs Low-DRB3/4/5	%(n)	22 labs High; 28 labs Low-DQA1	%(n)	33 High Labs; 30 labs Low-DQB1	%(n)			28 High Labs; 18 labs Low-DPB1	%(n)
	DRB1*04:26	100(32)	DRB4*01:03:01:01	5 (1)	DQA1*05:01:01:02	23(5)	DQB1*03:02:01	30(10)			DPB1*04:01:01:02	3 (1)
	DRB1*04	100(31)	DRB4*01:03:01	23(5)	DQA1*05:01:01	4 (1)	DQB1*03:02:01G	3 (1)			DPB1*04:01:01:01	3 (1)
			DRB4*01:01P	5 (1)	DQA1*05:01	73(16)	DQB1*03:02P	3 (1)			DPB1*04:01:01	14(4)
			DRB4*01:03	68(15)	DQA1*05	100(28)	DQB1*03:02	64(21)			DPB1*04:01:01G	7 (2)
			DRB4*01	74(17)			DQB1*03	3 (1)			DPB1*04:01P	11 (3)
			DRB4*PRESENT	26(6)			DQB1*03	97(32)			DPB1*04:01	61(17)
											DPB1*04(DP401)	56(10)
											DPB1*04	44(8)
DNA Typing - class I	21 labs High; 23 labs low- A	%(n)	21 labs High; 23 labs low- B	%(n)	21 labs High; 23 labs low- C	%(n)						
	A*32:01:01:01	9(2)	B*08:01:01	38(8)	C*01:02:01	38(8)						
	A*32:01:01	29(6)	B*08:01:01G	5 (1)	C*01:02:01G	5 (1)						
	A*32:01:01G	5 (1)	B*08:01P	5 (1)	C*01:02P	5 (1)						
	A*32:01P	5 (1)	B*08:01	52(11)	C*01:02	52(11)						
	A*32:01	52(11)	B*08	100(23)	C*01	100(23)						
	A*32	100(23)										
DNA Typing - class I	21 labs High; 23 labs low- A	%(n)	20 labs High; 24 labs low- B	%(n)	21 labs High; 23 labs low- C	%(n)						
	A*68:02:01:01	24(5)	B*44:02:01:01	20(4)	C*07:01:01:01	9 (2)						
	A*68:02:01	14(3)	B*44:02:01	10(2)	C*07:01:01	24(5)						
	A*68:02:01G	9 (1)	B*44:02:01G	5 (1)	C*07:01:01G	5 (1)						
	A*68:02P	9 (1)	B*44:02P	5 (1)	C*07:01P	5 (1)						
	A*68:02	52(11)	B*44:02	60(12)	C*07:01	57(12)						
	A*68	100(23)	B*44	100(24)	C*07	100(23)						

Table 3a: Individual laboratory results for B-cell #547-Class II

Low resolution														
Center	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles
87	*04	*16	4*01	5*02	*01	*03	*03	*05	*01	*01	*04(DP401)	*04(DP401)		DPB1*126
206	*04	*16	4*01	5*02	*01	*03	*03	*05	*01	*01	*04			
725	*04	*16	4*PRESENT	5*PRESENT	*01	*03	*03	*05					SSP SSO	
731	*04	*16			*01	*03	*03	*05					SSP SSO SBT	
735	*04	*16	4*01	5*02	*01	*03	*03	*05	*01	*01	*04(DP401)	*04(DP401)	SSP SSO SBT	
747	*04	*16	4*01	5*02	*01	*03	*03	*05	*01	*01	*04	*04	SSP SSO NGS	
771	*04	*16			*01	*03	*03	*05					SSP SSO	
774	*04	*16	4*01	5*02	*01	*03	*03	*05			*04(DP401)		SSP SSO	
779	*04	*16	4*01	5*02	*01	*03	*03	*05	*01		*04(DP401)		SSP SSO	
792	*04	*16	4*01	5*02	*01	*03	*03	*05	*01	*01	*04	*04	SSO SBT	
793	*04	*16	4*PRESENT	5*PRESENT	*01	*03	*03	*05			*04(DP401)		SSP	
794	*04	*16	4*01	5*02	*01	*03	*03	*05	*01		*04		SSP SSO NGS RT-PCR	
2400	*04	*16	4*01	5*02	*01	*03	*03	*05			*04		SSP SSO SBT	
2847	*04	*16											SSO	
3519	*04	*16			*01	*03	*03	*05	*01	*01	*04(DP401)	*04(DP401)	SSP NGS	
3632	*04	*16	4*01	5*02	*01	*03	*03	*05	*01		*04		SSP SSO	
3966													SSP	
4079	*04	*16	4*01	5*02	*01	*03	*03	*05			*04		SSP SSO	
4251	*04	*16	4*01	5*02	*01	*03	*03	*05	*01	*01	*04(DP401)	*04(DP401)	SSO NGS	
4492	*04	*16	4*PRESENT	5*PRESENT	*01	*03	*03	*05	*01	*01	*04(DP401)	*04(DP401)	SSP NGS	
5130	*04	*16	4*01	5*02	*01	*03	*03	*05			*04	*04	SSP SSO NGS	
5214	*04	*16	4*01	5*02	*01	*03	*03 (DQ7)	*05	*01	*01	*04(DP401)		SSO	
5219	*04	*16			*01	*03	*03	*05					SSO	
5451	*04	*16	4*01	5*02	*01	*03	*03	*05					SSP SSO SBT	
5462	*04	*16	4*01	5*02	*01	*03	*03	*05	*01		*04(DP401)		SSO	
5488			4*01	5*02	*01								SSP SSO SBT	
5642	*04	*16	3*PRESENT	5*PRESENT			*03	*05					SSP	
6649	*04	*16	4*PRESENT	5*PRESENT									SSP	
8001	*04	*16	4*PRESENT	5*PRESENT	*01	*03	*03	*05					SSP SSO	
8029	*04	*16			*01	*03	*03	*05					SSO	
8043	*04	*16			*01	*03	*03	*05					SSP SSO	
8068	*04	*16			*01	*03	*03	*05					SSO	
8087	NT												SSO	

Table 3b: Individual laboratory results for B-cell #547-Class II

High resolution												
Center	DRB1		DRB3/4/5		DQA1		DQB1		DPA1	DPB1	METHOD	Other Alleles
230	*04:31	*16:01					*03:01	*05:02		*04:01	SBT	
731	*04:31	*16:02:01					*03:01:01G	*05:02:01G			SSP SSO SBT	
735	*04:31	*16:02	4*01:01P	5*02:02P	*01:02	*03:03	*03:01	*05:02		*04:01	SSP SSO SBT	DRB5*01:10
747	*04:31	*16:02:01	4*01:03:01	5*02:02	*01:02:02	*03:03:01	*03:01:01:01	*05:02:01	*01:03:01:02	*04:01:01:01	SSP SSO NGS	
762	*04:31	*16:02:01	4*01:03:01	5*02:02	*01:02:02	*03:03:01	*03:01:01:01	*05:02:01	*01:03:01:02	*04:01:01:01	NGS	
771	*04:31	*16:02					*03:01	*05:02			SSP SSO	
774	*04:31	*16:02	4*01:03	5*02:02	*01:02	*03:03	*03:01	*05:02		*04:01	SSP SSO	DRB4*01:09 DRB4*01:10 DRB5*02:06 DQB1*03:92 DQB1*03:93 DQB1*05:53 DQB1*05:59 DQB1*05:65
779	*04:31				*01:02	*03:03	*03:01	*05:02	*01:03	*04:01	SSP SSO	
792	*04:31	*16:02					*03:01	*05:02		*04:01	SSO SBT	
793					*01:02	*03:03				*04:01	SSP	
794	*04:31	*16:02:01	4*01:03:01	5*02:02:01	*01:02	*03:03	*03:01:01	*05:02:01	*01:03	*04:01:01	SSP SSO NGS RT-PCR	
2344	*04:31	*16:02:01	4*01:03:01:01	5*02:02	*01:02:02	*03:03:01:01	*03:01:01	*05:02:01	*01:03:01:02	*04:01:01:01	NGS	DQB1*03:01:01:01 DQB1*03:01:01:02 DQB1*03:01:01:03 DPB1*04:01:01:02 DPB1*04:01:01:02 DRB4*01:03:01:03
2400	*04:31	*16:02			*01:02	*03:03	*03:01	*05:02		*04:01:01G	SSP SSO SBT	
3135	*04:31	*16:02	4*01:03	5*02:02	*01:02	*03:01	*03:01	*05:02	*01:03	*04:01		DQA1*03:02 DQA1*03:03
3224	*04:31	*16:02:01	4*01:03	5*02:02	NT	NT	*03:01:01G	*05:02:01	NT	NT	SSO SBT	
3511	*04:31	*16:02	4*01:03	5*02:02	*01:02	*03:03	*03:01	*05:02	*01:03	*04:01	SSO	
3519	*04:31	*16:02	4*01:03	5*02:02	*01:02	*03:03	*03:01	*05:02	*01:03	*04:01	SSP NGS	
3632	*04:31	*16:02	4*01:03	5*02:02	*01:02	*03:03	*03:01	*05:02	*01:03	*04:01	SSP SSO	
3753	*04:31	*16:02:01	4*01:03:01	5*02:02	*01:02:02	*03:03:01	*03:01:01	*05:02:01	*01:03:01	*04:01:01	NGS	
3966	*04:31	*16:02	4*01:03	5*02:02			*03:01	*05:02			SSP	
4079	*04:31	*16:02	4*01:03	5*02:02	*01:02	*03:03	*03:01	*05:02		*04:01	SSP SSO	
4251	*04:31	*16:02	4*01:03	5*02:02	*01:02	*03:03	*03:01	*05:02	*01:03	*04:01	SSO NGS	
4337	*04:31	*16:02					*03:01	*05:02		*04:01	SSP SBT	
4492	*04:31	*16:02:01	4*01:03	5*02:02	*01:02:02	*03:03:01	*03:01:01	*05:02:01	*01:03	*04:01:01	SSP NGS	DPA1*01:13
5130	*04:31	*16:02	4*01:03	5*02:02	*01:02	*03:03	*03:01	*05:02		*04:01	SSP SSO NGS	
5133	*04:31	*16:02:01	4*01:03:01	5*02:02:01	*01:02:02	*03:03:01:01	*03:01:01	*05:02:01	*01:03:01:02	*04:01:01	NGS	
5214										*04:01P		SSO
5451	*04:31	*16:02:01									SSP SSO SBT	

Table 3b: Individual laboratory results for B-cell #547-Class II

High resolution												
Center	DRB1		DRB3/4/5		DQA1		DQB1		DPA1	DPB1	METHOD	Other Alleles
5462	NT	NT	NT	NT	NT	NT	NT	NT	NT			DPB1*279:01 DPB1*418:01 DPB1*455:01N DPB1*459:01 DPB1*464:01 DPB1*468:01 DPB1*475:01 DPB1*553:01 DPB1*554:01 DPB1*569:01 DPB1*643:01 DPB1*614:01 DPB1*476:01 DPB1*479:01 DPB1*485:01 DPB1*486:01 DPB1*497:01 DPB1*658:01 DPB1*500:01 DPB1*427:01 DPB1*456:01 DPB1*425:01 DPB1*522:01+
5488	*04:31	*16:02:01				*03:03	*03:01:01	*05:02:01			*04:01:01	SSO SSP SSO SBT
5642	*04:31	*16:02					*03:01	*05:02				SSP
8001	*04:31	*16:02	4*01:03	5*02:02			*03:01	*05:02			*04:01	SSP SSO
8021	*04:31	*16:02	4*01:03	5*02:02	*01:02	*03:03	*03:01	*05:02	*01:03		*04:01	SSO NGS
8042	*04:31	*16:02	4*01:03	5*02:02			*03:01	*05:02				SSP
8043	*04:31	*16:02			*01:02	*03:03	*03:01	*05:02				SSP SSO
8070	*04:31	*16:02					*03:01	*05:02				SBT
9916	*04:31	*16:02:01	4*01:03:01:01	5*02:02:01	NT	NT	*03:01:01	*05:02:01	NT		*04:01:01	SSP SBT

Table 4: Individual laboratory results for B-cell #547-Class II

Serology										
CTR	DRB1		DRB3/4/5		DQB1		Others			
910	DR4	DR16	DR53	DR51			DQ7	DQ1	DR15	

Table 5: Individual laboratory results for B-cell #547-Class I

Low resolution							High resolution						METHOD	Other Alleles
Center	HLA-A		HLA-B		HLA-C		HLA-A		HLA-B		HLA-C			
87	*02	*31	*18	*51	*07	*15								
206	*02	*31	*18	*51	*07	*15								
230							*02:01	*31:01	*18:01	*51:01	*07:01	*15:02	SBT	
725	*02	*31	*18	*51	*07	*15							SSP SSO	
731													SSP SSO SBT	
735	*02	*31	*18	*51	*07	*15	*02:01P	*31:01P	*18:01	*51:01P	*07:01P	*15:02P	SSP SSO SBT	
747	*02	*31	*18	*51	*07	*15	*02:01:01:01	*31:01:02:01	*18:01:01	*51:01:01	*07:01:01:01	*15:02:01	SSP SSO NGS	
774	*02	*31	*18	*51	*07	*15							SSP SSO	
779	*02	*31	*18	*51	*07	*15							SSP SSO	
792	*02	*31	*18	*51	*07	*15	*02:01	*31:01	*18:01	*51:01	*07:01	*15:02	SSO SBT	A*02:01:01:02L
793	*02	*31	*18	*51	*07	*15							SSP	
794	*02	*31	*18	*51	*07	*15	*02:01:01	*31:01:02	*18:01:01	*51:01:01	*07:01:01	*15:02:01	SSP SSO NGS RT-PCR	
2344							*02:01:01:01	*31:01:02:01	*18:01:01	*51:01:01	*07:01:01:01	*15:02:01:01	NGS	
2400	*02	*31	*18	*51	*07	*15	*02:01	*31:01	*18:01	*51:01	*07:01	*15:02	SSP SSO SBT	
2847	*02	*31	*18	*51	*07	*15							SSO	
3135							*02:01	*31:01	*18:01	*51:01	*07:01	*15:02		A*02:01L C*07:06 C*07:18
3224							*02:01:01G	*31:01:02G	*18:01:01G	*51:01:01G	*07:01:01G	*15:02:01G	SSO SBT	
3511							*02:01	*31:01	*18:01	*51:01	*07:01	*15:02	SSO	
3519	*02	*31	*18	*51	*07	*15	*02:01	*31:01	*18:01	*51:01	*07:01	*15:02	SSP NGS	
3753							*02:01:01	*31:01:02	*18:01:01	*51:01:01	*07:01:01	*15:02:01	NGS	
3966	*02	*31	*18	*51	*07	*15							SSP	
4251	*02	*31	*18	*51	*07	*15	*02:01	*31:01	*18:01	*51:01	*07:01	*15:02	SSO NGS	
4337							*02:01	*31:01	*18:01	*51:01	*07:01	*15:02	SSP SBT	
4492	*02	*31	*18	*51	*07	*15	*02:01:01	*31:01:02:01	*18:01:01	*51:01:01	*07:01:01	*15:02:01	SSP NGS	
5130	*02	*31	*18	*51	*07	*15	*02:01	*31:01	*18:01	*51:01	*07:01	*15:02	SSP SSO NGS	A*02:01L
5133							*02:01:01:01	*31:01:02:01	*18:01:01	*51:01:01	*07:01:01	*15:02:01:01	NGS	
5214	*02	*31	*18	*51	*07	*15							SSO	
5219	*02	*31	*18	*51	*07	*15							SSO	
5462	*02	*31	*18	*51	*07	*15	NT	NT	NT	NT	NT	NT	SSO	
5488							*02:01:01	*31:01:02	*18:01:01	*51:01:01	*07:01	*15:02:01	SSP SSO SBT	A*31:119 C*07:40 B*18:26 B*18:01:03 B*51:01:35 B*51:37 C*07:09 C*07:16 C*07:96:02 C*07:165 C*07:196 C*15:03 C*15:07 C*15:02:05 C*15:62 C*15:63 C*15:31 C*15:72
8021							*02:01	*31:01	*18:01	*51:01	*07:01	*15:02	SSO NGS	
8029	*02	*31	*18	*51	*07	*15							SSO	
8042							*02:01	*31:01	*18:01	*51:01	*07:01	*15:02	SSP	
8068	*02	*31	*18	*51	*07	*15							SSO	
9916							*02:01	*31:01:02	*18:01:01	*51:01:01	*07:01:01	*15:02:01	SSP SBT	

Table 6a: Individual laboratory results for B-cell #548-Class II

Low resolution															
Center	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles	
87	*03	*04	3*01	4*01	*03	*05	*02	*03	*01	*01	*03	*04(DP401)			
206	*03	*04	3*01	4*01	*03	*05	*02	*03	*01	*01	*03	*04			
725	*03	*04	3*PRESENT	4*PRESENT	*03	*05	*02	*03					SSP SSO		
731	*03	*04			*03	*05	*02	*03					SSP SSO SBT		
735	*03	*04	3*01	4*01	*03	*05	*02	*03	*01	*01	*03	*04(DP401)	SSP SSO SBT		
747	*03	*04	3*01	4*01	*03	*05	*02	*03	*01	*01	*03	*04	SSP SSO NGS		
771	*03	*04			*03	*05	*02	*03					SSP SSO		
774	*03	*04	3*01	4*01	*03	*05	*02	*03			*03	*04(DP401)	SSP SSO		
779	*03	*04	3*01	4*01	*03	*05	*02	*03	*01	*01	*03	*04(DP401)	SSP SSO		
792	*03	*04	3*01	4*01	*03	*05	*02	*03	*01	*01	*03	*04	SSO SBT		
793	*03	*04	3*PRESENT	4*PRESENT	*03	*05	*02	*03			*03	*04(DP401)	SSP		
794	*03	*04	3*01	4*01	*03	*05	*02	*03	*01		*03	*04	SSP SSO NGS RT-PCR		
2400	*03	*04	3*01	4*01	*03	*05	*02	*03			*03	*04	SSP SSO SBT		
2847	*03	*04											SSO		
3519	*03	*04			*03	*05	*02	*03	*01	*01	*03	*04(DP401)	SSP NGS		
3632	*03	*04	3*01	4*01	*03	*05	*02	*03	*01		*03	*04	SSP SSO		
3966													SSP		
4079	*03	*04	3*01	4*01	*03	*05	*02	*03			*03	*04	SSP SSO		
4251	*03	*04	3*01	4*01	*03	*05	*02	*03	*01	*01	*03	*04(DP401)	SSO NGS		
4492	*03	*04	3*PRESENT	4*PRESENT	*03	*05	*02	*03	*01	*01	*03	*04(DP401)	SSP NGS		
5130	*03	*04	3*01	4*01	*03	*05	*02	*03			*03	*04	SSP SSO NGS		
5214	*03 (DR17)	*04	3*01	4*01	*03	*05	*02	*03 (DQ8)	*01	*01	*03	*04(DP401)	SSO		
5219	*03	*04			*03	*05	*02	*03					SSO		
5451	*03	*04	3*01	4*01	*03	*05	*02	*03					SSP SSO SBT		
5462	*03	*04	3*01	4*01	*03	*05	*02	*03	*01		*03	*04(DP401)	SSO		
5488			3*01	4*01									SSP SSO SBT		
5642	*03	*04	3*PRESENT	4*PRESENT			*02	*03					SSP		
6649	*03	*04	3*PRESENT	4*PRESENT									SSP		
8001	*03	*04	3*PRESENT	4*PRESENT	*03	*05	*02	*03					SSP SSO		
8029	*03	*04			*03	*05	*02	*03					SSO		
8043	*03	*04			*03	*05	*02	*03					SSP SSO		
8068	*03	*04			*03	*05	*02	*03					SSO		
8087	*03	*04			*03	*05	*02	*03					SSO		

Table 6b: Individual laboratory results for B-cell #548-Class II

High resolution														
Center	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles
230	*03:01	*04:26					*02:01	*03:02			*03:01	*04:01	SBT	
731	*03:01:01G	*04:26					*02:01:01G	*03:02:01G					SSP SSO SBT	
735	*03:01	*04:26	3*01:01P	4*01:01P	*03:01	*05:01	*02:01	*03:02P			*03:01P	*04:01P	SSP SSO SBT	DRB5*01:10
747	*03:01:01:01	*04:26	3*01:01:02:01	4*01:03:01	*03:01:01	*05:01:01:02	*02:01:01	*03:02:01	*01:03:01:02	*01:03:01:03	*03:01:01	*04:01:01:02	SSP SSO NGS	DPB1*124:01 DPB1*350:01
762	*03:01:01:01	*04:26	3*01:01:02:01	4*01:03:01	*03:01:01	*05:01:01:02	*02:01:01	*03:02:01	*01:03:01:02	*01:03:01:03	*03:01:01	*04:01:01	NGS	DPB1*124:01 DPB1*350:01
771	*03:01	*04:26					*02:01	*03:02					SSP SSO	
														DRB1*03:68N DRB1*03:83 DRB1*03:104 DRB1*03:112 DRB3*01:16 DRB3*01:17 DRB3*01:19 DRB4*01:09 DRB4*01:10 DQB1*02:05 DQB1*02:07 DQB1*02:14 DQB1*02:15 DQB1*02:16 DQB1*02:18N DQB1*02:23 DQB1*02:24 DQB1*02:30 DQB1*02:31 DQB1*02:32 DQB1*02:33 DQB1*02:37 DQB1*02:38 DQB1*02:39 DQB1*02:08 DQB1*02:09+
774	*03:01	*04:26	3*01:01	4*01:03	*03:01	*05:01	*02:01	*03:02			*03:01	*04:01	SSP SSO	
779	*03:01				*03:01	*05:01	*02:01	*03:02	*01:03	*01:03	*03:01	*04:01	SSP SSO	
792	*03:01	*04:26					*02:01	*03:02			*03:01	*04:01	SSO SBT	
793					*03:01	*05:01					*03:01	*04:01	SSP	
794	*03:01:01	*04:26	3*01:01:02	4*01:03:01	*03:01	*05:01	*02:01:01	*03:02:01	*01:03		*03:01:01	*04:01:01	SSP SSO NGS RT-PCR	
														DPB1*124:01 DPB1*04:01:01:02 DPB1*350:01 DRB3/4/5*3*01:01:0 2:02 DRB3/4/5*4*01:03:0 1:03
2344	*03:01:01:01	*04:26	3*01:01:02:01	4*01:03:01:01	*03:01:01	*05:01:01:02	*02:01:01	*03:02:01	*01:03:01:02	*01:03:01:03	*03:01:01	*04:01:01:01	NGS	
2400	*03:01	*04:26			*03:01	*05:01	*02:01	*03:02			*03:01	*04:01	SSP SSO SBT	

Table 6b: Individual laboratory results for B-cell #548-Class II

High resolution														
Center	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles
3135	*03:01	*04:26	3*01:01	4*01:03	*03:01	*05:01	*02:01	*03:02	*01:03	*01:03	*03:01	*04:01		
3224	*03:01:01G	*04:26	3*01:01	4*01:03	NT	NT	*02:01	*03:02:01	NT	NT	NT	NT	SSO SBT	
3511	*03:01	*04:26	3*01:01	4*01:03	*03:01	*05:01	*02:01	*03:02	*01:03		*03:01	*04:01	SSO	
3519	*03:01	*04:26	3*01:01	4*01:03	*03:01	*05:01	*02:01	*03:02	*01:03	*01:03	*03:01	*04:01	SSP NGS	
3632	*03:01	*04:26	3*01:01	4*01:03	*03:01	*05:01	*02:01	*03:02	*01:03		*03:01	*04:01	SSP SSO	
3753	*03:01:01	*04:26	3*01:01:02	4*01:03:01	*03:01:01	*05:01:01	*02:01:01	*03:02:01	*01:03:01	*01:03:01	*03:01:01G	*04:01:01G	NGS	
3966	*03:01	*04:26	3*01:01	4*01:03			*02:01	*03:02					SSP	
4079	*03:01	*04:26	3*01:01	4*01:03	*03:01	*05:01	*02:01	*03:02			*03:01	*04:01	SSP SSO	
4251	*03:01	*04:26	3*01:01	4*01:03	*03:01	*05:01	*02:01	*03:02	*01:03	*01:03	*03:01:01G	*04:01:01G	SSO NGS	
4337	*03:01	*04:26					*02:01	*03:02			*03:01	*04:01	SSP SBT	
4492	*03:01:01	*04:26	3*01:01	4*01:03	*03:01:01	*05:01:01:02	*02:01:01	*03:02:01	*01:03	*01:03	*03:01:01	*04:01:01	SSP NGS	DPA1*01:13
5130	*03:01	*04:26	3*01:01	4*01:03	*03:01	*05:01	*02:01	*03:02			*03:01	*04:01	SSP SSO NGS	DRB1*04:01
5133	*03:01:01	*04:26	3*01:01:02:02	4*01:03:01	*03:01:01	*05:01:01:02	*02:01:01	*03:02:01	*01:03:01:02	*01:03:01:03	*03:01:01	*04:01:01	NGS	
5214											*03:01P	*04:01P		
5451	*03:01:01	*04:26											SSP SSO SBT	
5462	NT	NT	NT	NT	NT	NT	NT	NT	NT		*03:01P	*04:01P	SSO	DPB1*104:01 DPB1*124:01 DPB1*350:01 DPB1*459:01 DPB1*464:01 DPB1*534:01 DPB1*615:01 DPB1*618:01
5488	*03:01:01	*04:26			*03:01	*05:01	*02:01:01	*03:02:01			*03:01	*04:01	SSP SSO SBT	DPB1*350:01 DPB1*124:01
5642	*03:01	*04:26					*02:01	*03:02					SSP	
8001	*03:01	*04:26	3*01:01	4*01:03			*02:01	*03:02			*03:01:01G	*04:01	SSP SSO	
8021	*03:01	*04:26	3*01:01	4*01:03	*03:01	*05:01	*02:01	*03:02	*01:03		*03:01	*04:01	SSO NGS	
8042	*03:01	*04:26	3*01:01	4*01:03			*02:01	*03:02					SSP	
8043	*03:01	*04:26			*03:01	*05:01	*02:01	*03:02					SSP SSO	
8070	*03:01						*02:01	*03:02					SBT	
9916	*03:01:01	*04:26	3*01:01	4*01:03	NT	NT	*02:01:01	*03:02:01	NT	NT	*03:01	*04:01	SSP SBT	

Table 7: Individual laboratory results for B-cell #548-Class II

Serology										
CTR	DRB1		DRB3/4/5		DQB1		Others			
910	DR17	DR4	DR52	DR53			DQ2	DQ8	DR18	

Table 8: Individual laboratory results for B-cell #548-Class I

Low resolution							High resolution						METHOD	Other Alleles
Center	HLA-A		HLA-B		HLA-C		HLA-A		HLA-B		HLA-C			
87	*32	*68	*08	*44	*01	*07								
206	*32	*68	*08	*44	*01	*07								
230							*32:01	*68:02	*08:01	*44:02	*01:02	*07:01	SBT	
725	*32	*68	*08	*44	*01	*07							SSP SSO	
731													SSP SSO SBT	
735	*32	*68	*08	*44	*01	*07	*32:01P	*68:02P	08:01P	*44:02P	*01:02P	*07:01P	SSP SSO SBT	
747	*32	*68	*08	*44	*01	*07	*32:01:01	*68:02:01:01	*08:01:01	*44:02:01:01	*01:02:01	*07:01:01:01	SSP SSO NGS	
774	*32	*68	*08	*44	*01	*07							SSP SSO	
779	*32	*68	*08	*44	*01	*07							SSP SSO	
792	*32	*68	*08	*44	*01	*07	*32:01	*68:02	*08:01	*44:02	*01:02	*07:01	SSO SBT	B*44:02:01:02S
793	*32	*68	*08	*44	*01	*07							SSP	
794	*32	*68	*08	*44	*01	*07	*32:01:01	*68:02:01	*08:01:01	*44:02:01	*01:02:01	*07:01:01	SSP SSO NGS	
2344							*32:01:01:01	*68:02:01:01	*08:01:01	*44:02:01:01	*01:02:01	*07:01:01:01	RT-PCR	
2400	*32	*68	*08	*44	*01	*07	*32:01	*68:02	*08:01	*44:02	*01:02	*07:01	NGS	
2847	*32	*68	*08	*44	*01	*07	*32:01	*68:02	*08:01	*44:02	*01:02	*07:01	SSP SSO SBT	
3135							*32:01	*68:02	*08:01	*44:02	*01:02	*07:01	SSO	C*07:06 C*07:18
3224							*32:01:01G	*68:02:01G	*08:01:01G	*44:02:01G	*01:02:01G	*07:01:01G	SSO SBT	
3511							*32:01	*68:02	*08:01	*44:02	*01:02	*07:01	SSO	
3519	*32	*68	*08	*44	*01	*07	*32:01	*68:02	*08:01	*44:02	*01:02	*07:01	SSP NGS	
3632													SSP SSO	
3753							*32:01:01	*68:02:01	*08:01:01	*44:02:01	*01:02:01	*07:01:01	NGS	
3966	*32	*68	*08	*44	*01	*07							SSP	
4251	*32	*68	*08	*44	*01	*07	*32:01	*68:02	*08:01	*44:02	*01:02	*07:01	SSO NGS	
4337							*32:01	*68:02	*08:01	*44:02	*01:02	*07:01	SSP SBT	
4492	*32	*68	*08	*44	*01	*07	*32:01:01	*68:02:01:01	*08:01:01	*44:02:01:01	*01:02:01	*07:01:01	SSP NGS	
5130	*32	*68	*08	*44	*01	*07	*32:01	*68:02	*08:01	*44:02	*01:02	*07:01	SSP SSO NGS	
5133							*32:01:01:01	*68:02:01:01	*08:01:01	*44:02:01:01	*01:02:01	*07:01:01	NGS	
5214	*32	*68	*08	*44	*01	*07							SSO	
5219	*32	*68	*08	*44	*01	*07							SSO	
5462	*32	*68	*08	*44	*01	*07	NT	NT	NT	NT	NT	NT	SSO	
5488				*44			*32:01:01	*68:02:01	*08:01:01		*01:02:01	*07:01	SSP SSO SBT	B*08:50 B*08:71 B*08:122 C*01:17 C*01:127 C*07:40 C*07:248 C*07:16 C*07:141:02 C*01:02:04 C*01:54 C*01:58 C*01:60
8021							*32:01	*68:02	*08:01	*44:02	*01:02	*07:01	SSO NGS	
8029	*32	*68	*08	*44	*01	*07							SSO	
8042							*32:01	*68:02	*08:01	*44:02	*01:02	*07:01	SSP	C*01:27
8068	*32	*68	*08	*44	*01	*07							SSO	
8087	*32	*68	*08	*44	*01	*07							SSO	
9916							*32:01:01	*68:02:01:01	*08:01:01	*44:02	*01:02:01	*07:01:01	SSP SBT	

CELL EXCHANGE #403

The results for Cell Exchange #403 are summarized in Table 9 and Table 10. Molecular typing results for individual laboratories are listed in Tables 11 - 14 for each sample and individual serology results for each sample are listed

in Table 15. The haplotype frequencies used in this report are from the NMDP Bioinformatics website, <https://bioinformatics.bethematchclinical.org/>.

Cell 1609. The consensus type for this cell from an Asian donor is A*33:03(A33)-B*44:03(B44)-B*46:01(B46)-C*01:02(Cw1)-C*14:03. One likely association present is A*33:03-B*46:01-C*01:02, observed exclusively in Asians, with HF=0.00127. This same association was observed in one other exchange cell, cell 837 (same as cell 762 and 742), from a Thai donor. The other association likely present is A*33:03-B*44:03-C*14:03, commonly observed in Asians, with HF=0.01136. A*33:03, B*44:03, B*46:01, C*01:02, and C*14:03 were assigned in complete consensus; 4 labs assigned A*33:03:01, B*44:03:01, and C*01:02:01, and 5 labs assigned B*46:01:01. A33 (93%) and B44 (100%) were each well assigned by serology. However, B46 (80%) was not as well assigned, as 1 lab assigned B62 instead of B46 and 2 labs did not assign a second B-locus antigen.

Cell 1610. The consensus type for this cell from a Hispanic donor is A*11:12-A*31:01-B*18:01-B*40:02-C*03:06-C*07:01. The likely associations present in this cell are B*40:02-C*03:06 and B*18:01-C*07:01, observed in Hispanics, with respective HF=0.00778 and HF=0.00779. A*11:12 was assigned in complete consensus by labs reporting at high resolution. This is the first A*11:12 cell typed in the Exchange. A*11:12 differs from A*11:01 by a single nucleotide substitution in exon 2 at codon 90 (GAC → GCC), resulting in an amino acid change from aspartic acid to alanine (1). A*31:01, B*18:01, B*40:02, and C*07:01 were each assigned in complete consensus, while C*03:06 was assigned by 93%. The serological types were reported as A11 (100%), A31 (93%), B18 (100%), B61 (67%), Cw3 (40%), and Cw7 (40%).

Cell 1611. The consensus type for this cell from a Chinese donor is A*24:02(A24)-A*33:03(A33)-B*40:01(B60)-B*58:01(B58)-*03:02(Cw3)-C*04:03(Cw4). One likely association present in this cell is B*58:01-C*03:02, the second most common association observed in Asians, with HF=0.05543. The other likely association present is B*40:01-C*04:03, observed exclusively in Asians, with HF=0.00102. A*24:02, A*33:03, B*40:01, B*58:01, C*03:02, and C*04:03 were each assigned in complete agreement, with 3 labs assigning A*24:02:01, A*33:03:01, B*40:01:02, B*58:01:01, C*03:02:01, and 4 labs assigning C*04:03:01. Serology labs were also in complete agreement in assigning A24, A33, B40 (B60), and B17 (B58).

Cell 1612. The consensus type for this cell from an Asian donor is A*33:03(A33)-B*44:03(B44)-B*58:01(B58)-C*03:02(Cw3)-C*07:01:01G(Cw7). One likely associations present in this cell is A*33:03-B*58:01-C*03:02, the most common association observed in Asians, with HF=0.04458. The other likely association present is A*33:03-B*44:03-C*07:01:01G, also commonly observed in Asians, with HF = 0.01756. B*44:03, B*58:01, and C*03:02 were each assigned in complete consensus by labs reporting at high resolution. However, the assignment of the second C-locus allele remained unresolved, as 7 labs assigned C*07:06, 3 labs assigned C*07:01, and 3 labs assigned C*07:01:01G. A33 (100%), B44 (100%), B58 (92%), Cw3 (31%), and Cw7 (39%) were assigned as the serological types.

References:

1. Garino E, Belvedere M, Berrino M, et al. New HLA-A*11 allele, A*1112, identified by sequence-based typing. *Tissue Antigens*. 2002;60:84-87.

NEXT MAILING DATE: May 16, 2018

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Table 9. Summary of the 403rd Cell Exchange (Cell #1609-1612)

DNA typing

Cell 1609	
19 low/13 high labs - A	%(n)
A*33:03:01	30(4)
A*33:03:01G	8 (1)
A*33:03	62(8)
A*33	100(19)
19 low/14 high labs - B	%(n)
B*44:03:01	29(4)
B*44:03:01G	7 (1)
B*44:03	64(9)
B*44	100(19)
19 low/14 high labs - B	%(n)
B*46:01:01	36(5)
B*46:01	64(9)
B*46	100(19)
18 low/14 high Labs - C	%(n)
C*01:02:01	29(4)
C*01:02:01G	14(2)
C*01:02	57(8)
C*01	100(18)
18 low/14 high Labs - C	%(n)
C*14:03	100(14)
C*14	100(18)

Cell 1610	
19 low/15 high labs - A	%(n)
A*11:12	100(15)
A*11	100(19)
19 low/15 high labs - A	%(n)
A*31:01:02:01	27(4)
A*31:01:02G	20(3)
A*31:01	53(8)
A*31	100(19)
21 low/14 high labs - B	%(n)
B*18:01:01	29(4)
B*18:01:01G	14(2)
B*18:01	57(8)
B*18	100(19)
19 low/15 high labs - B	%(n)
B*40:02:01	27(4)
B*40:02:01G	13(2)
B*40:02	60(9)
B*40 (B61)	11(2)
B*40	89(17)
18 low/15 high Labs - C	%(n)
C*03:06:01	33(5)
C*03:06	60(9)
C*03:04	7 (1)
C*03 (Cw10)	11(2)
C*03	89(16)
18 low/14 high Labs - C	%(n)
C*07:01:01:01	21(3)
C*07:01:01	7 (1)
C*07:01:01G	14(2)
C*07:01	57(8)
C*07	100(18)

Cell 1611	
17 low/13 high labs - A	%(n)
A*24:02:01:01	15(2)
A*24:02:01	8 (1)
A*24:02:01G	8 (1)
A*24:02P	8 (1)
A*24:02	61(8)
A*24	100(17)
17 low/13 high labs - A	%(n)
A*33:03:01	23(3)
A*33:03:01G	8 (1)
A*33:03	69(9)
A*33	100(17)
17 low/14 high labs -B	%(n)
B*40:01:02:01	7 (1)
B*40:01:02	14(2)
B*40:01:01G	14(2)
B*40:01	64(9)
B*40 (B60)	13(2)
B*40	87(15)
17 low/13 high labs -B	%(n)
B*58:01:01:03	8 (1)
B*58:01:01	15(2)
B*58:01:01G	8 (1)
B*58:01	69(9)
B*58	100(17)
16 low/14 high Labs - C	%(n)
C*03:02:02:01	21(3)
C*03:02:01G	7 (1)
C*03:02	71(10)
C*03 (Cw10)	12(2)
C*03	88(14)
16 low/14 high Labs - C	%(n)
C*04:03:01	29(4)
C*04:03	71(10)
C*04	100(16)

Cell 1612	
17 low/13 high labs - A	%(n)
A*33:03:01	23(3)
A*33:03:01G	8 (1)
A*33:03	69(9)
A*33	100(17)
17 low/13 high labs - B	%(n)
B*44:03:02	31(4)
B*44:03	69(9)
B*44	100(17)
17 low/13 high labs - B	%(n)
B*58:01:01:03	8 (1)
B*58:01:01	15(2)
B*58:01:01G	8 (1)
B*58:01	69(9)
B*58	100(17)
16 low/14 high labs - C	%(n)
C*03:02:02:01	21(3)
C*03:02:01G	14(2)
C*03:02	64(9)
C*03 (Cw10)	12(2)
C*03	88(14)
16 low/13 high labs - C	%(n)
C*07:01:01G	23(3)
C*07:06	54(7)
C*07:01:01G	23(3)
C*07	100(16)

Table 10. Summary of the 403rd Cell Exchange (Cell #1609 - 1612)

Serological typing

(Asian) Cell 1609 (15 Samples Typed)	
A33	93.3% [93.3%]
B44	100.0% [100.0%]
B46	80.0%
Cw1	33.3%
Bw4	80.0%
Bw6	60.0%
Others Found	
Cw3	13.3%
B62	6.7%
A31	6.7%
Cw14	6.7%
A29	6.7%
A68	6.7%

(Hispanic) Cell 1610 (15 Samples Typed)	
A11	93.3%
A11.1	6.7% [100.0%]
A31	93.3% [93.3%]
B18	100.0%
B61	66.7%
B40	26.7% [93.3%]
Cw3	40.0% [40.0%]
Cw7	40.0%
Bw6	80.0%
Others Found	
A30	13.3%
B60	6.7%
B48	6.7%

(Chinese) Cell 1611 (13 Samples Typed)	
A24	100.0% [100.0%]
A33	100.0% [100.0%]
B60	92.3%
B40	7.7% [100.0%]
B58	92.3%
B17	7.7% [100.0%]
Cw3	38.5% [38.5%]
Cw4	30.8% [30.8%]
Bw4	69.2%
Bw6	69.2%
Others Found	
B52	7.7%
A29	7.7%
A23	7.7%
Cw6	7.7%
Bw4 Bw6	7.7%

(Asian) Cell 1612 (13 Samples Typed)	
A33	100.0% [100.0%]
B44	100.0% [100.0%]
B58	92.3%
B17	7.7% [100.0%]
Cw3	30.8% [30.8%]
Cw7	38.5%
Bw4	76.9%
Others Found	
A29	15.4%
A30	7.7%
A34	7.7%

Table 11. Individual laboratory results for Cell #1609

Center	Low Resolution						High Resolution						Method	Other Alleles
	HLA-A		HLA-B		HLA-C		HLA-A		HLA-B		HLA-C			
725	*33		*44	*46	*01	*14							SSO	
731	*33		*44	*46	*01	*14	*33:03:01G		*44:03:01G	*46:01:01	*01:02:01G	*14:03	SSP SSO SBT	
745							*33:03:01		*44:03:01	*46:01:01	*01:02:01	*14:03	SSP SBT NGS	
747	*33	*33	*44	*46	*01	*14	*33:03:01	*33:03:01	*44:03:01	*46:01:01	*01:02:01	*14:03	SSP SSO NGS	
762							*33:03:01		*44:03:01	*46:01:01	*01:02:01	*14:03	NGS	
771	*33		*44	*46	*01	*14	*33:03		*44:03	*46:01	*01:02	*14:03	SSO SBT	
774	*33		*44	*46	*01	*14							SSP SSO	
779	*33	*33	*44	*46	*01	*14							SSP SSO	
3186	*33	*33	*44	*46	*01	*14							SSO	
3545	*33		*44	*46	*01	*14	*33:03		*44:03	*46:01	*01:02	*14:03	SSP SSO SBT	C*01:85 C*01:127 C*01:142
3625							*33:03	*33:03	*44:03	*46:01	*01:02	*14:03		C*01:127
3632	*33		*44	*46	*01	*14	*33:03		*44:03	*46:01	*01:02	*14:03	SSP SSO	
3766	*33		*44	*46	*01	*14							SSO	
3808	*33		*44	*46	*01	*14							SSP SBT	
4079	*33		*44	*46	*01	*14			*44:03	*46:01	*01:02	*14:03	SSP SSO	
4251	*33	*33	*44	*46	*01	*14	*33:03	*33:03	*44:03	*46:01	*01:02:01G	*14:03	SSO SBT	
5133							*33:03:01		*44:03:01	*46:01:01	*01:02:01	*14:03	NGS	
5214	*33		*44	*46	*01	*14							SSO	
5462	*33		*44	*46	*01	*14	*33:03		*44:03	*46:01	*01:02	*14:03	SSO NGS	
5642	*33		*44	*46	*01	*14							SSP	
6649	*33		*44	*46									SSP	
8001	*33		*44	*46	*01	*14							SSO	
8043	*33		*44	*46	*01	*14	*33:03		*44:03	*46:01	*01:02	*14:03	SSP SSO	
8070							*33:03		*44:03	*46:01	*01:02	*14:03	SBT	

Table 12. Individual laboratory results for Cell #1610

Center	Low Resolution						High Resolution						Method	Other Alleles
	HLA-A		HLA-B		HLA-C		HLA-A		HLA-B		HLA-C			
725	*11	*31	*18	*40	*03	*07							SSO	
731	*11	*31	*18	*40	*03	*07	*11:12	*31:01:02G	*18:01:01G	*40:02:01G	*03:06:01	*07:01:01G	SSP SSO SBT	
745							*11:12	*31:01:02:01	*18:01:01	*40:02:01	*03:06:01	*07:01:01	SSP SBT NGS	
747	*11	*31	*18	*40	*03	*07	*11:12	*31:01:02:01	*18:01:01	*40:02:01	*03:06:01	*07:01:01:01	SSP SSO NGS	
762							*11:12	*31:01:02:01	*18:01:01	*40:02:01	*03:06:01	*07:01:01:01	NGS	
771	*11	*31	*18	*40	*03	*07	*11:12	*31:01	*18:01	*40:02	*03:06	*07:01	SSO SBT	
774	*11	*31	*18	*40	*03	*07							SSP SSO	
779	*11	*31	*18	*40	*03	*07				*40:02	*03:04		SSP SSO	
3186	*11	*31	*18	*40	*03	*07							SSO	
3545	*11	*31	*18	*40	*03	*07	*11:12	*31:01	*18:01	*40:02	*03:06	*07:01	SSP SSO SBT	B*18:17N B*18:131 C*07:06 C*07:18 A*31:119 B*40:303 B*40:356 C*07:591 C*07:343 C*07:419 C*07:458
3625							*11:12	*31:01	*18:01	*40:02	*03:06	*07:01		A*31:119 B*18:17N B*18:131 B*40:303
3632	*11	*31	*18	*40	*03	*07	*11:12	*31:01	*18:01	*40:02	*03:06	*07:01	SSP SSO	
3766	*11	*31	*18	*40	*03	*07							SSO	
3808	*11	*31	*18	*40	*03	*07	*11:12	*31:01:02G					SSP SBT	
4079	*11	*31	*18	*40	*03	*07	*11:12	*31:01	*18:01	*40:02	*03:06	*07:01	SSP SSO	
4251	*11	*31	*18	*40	*03	*07	*11:12	*31:01:02G	*18:01:01G	*40:02:01G	*03:06	*07:01:01G	SSO SBT	
5133							*11:12	*31:01:02:01	*18:01:01	*40:02:01	*03:06:01	*07:01:01:01	NGS	
5214	*11	*31	*18	*40 (B61)	*03 (Cw10)	*07							SSO	
5462	*11	*31	*18	*40	*03	*07	*11:12	*31:01	*18:01	*40:02	*03:06	*07:01	SSO NGS	
5642	*11	*31	*18	*40	*03	*07							SSP	
6649	*11	*31	*18	*40									SSP	
8001	*11	*31	*18	*40 (B61)	*03 (Cw10)	*07							SSO	
8043	*11	*31	*18	*40	*03	*07	*11:12	*31:01	*18:01	*40:02	*03:06	*07:01	SSP SSO	
8070							*11:12	*31:01	*18:01	*40:02	*03:06	*07:01	SBT	

Table 13. Individual laboratory results for Cell #1611

Center	Low Resolution						High Resolution						Method	Other Alleles
	HLA-A		HLA-B		HLA-C		HLA-A		HLA-B		HLA-C			
725	*24	*33	*40	*58	*03	*04							SSO	
731	*24	*33	*40	*58	*03	*04	*24:02:01G	*33:03:01G	*40:01:01G	*58:01:01G	*03:02:01G	*04:03:01	SSP SSO SBT	
745							*24:02:01:01	*33:03:01	*40:01:02	*58:01:01	*03:02:02:01	*04:03:01	SSP SBT NGS	
747	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	SSP SSO NGS	A*24:352 A*24:353
762							*24:02:01:01	*33:03:01	*40:01:02	*58:01:01	*03:02:02:01	*04:03:01	NGS	
771	*24	*33	*40	*58	*03	*04	*24:02	*33:03	*40:01	*58:01	*03:02	*04:03	SSO SBT	
774	*24	*33	*40	*58	*03	*04							SSP SSO	
779	*24	*33	*40	*58	*03	*04			*40:01		*03:02	*04:03	SSP SSO	
3186	*24	*33	*40	*58	*03	*04							SSO	
3545	*24	*33	*40	*58	*03	*04	*24:02	*33:03	*40:01	*58:01	*03:02	*04:03	SSP SSO SBT	
3625							*24:02	*33:03	*40:01	*58:01	*03:02	*04:03		
3625							*24:02	*33:03	*40:01	*58:01	*03:02	*04:03		
3632	*24	*33	*40	*58	*03	*04	*24:02	*33:03	*40:01	*58:01	*03:02	*04:03	SSP SSO	
3766	*24	*33	*40	*58	*03	*04							SSO	
3808	*24	*33	*40	*58	*03	*04							SSP SBT	
4079	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	SSP SSO	
4251	*24	*33	*40	*58	*03	*04	*24:02P	*33:03	*40:01:01G	*58:01	*03:02	*04:03	SSO SBT	
5133							*24:02:01	*33:03:01	*40:01:02:01	*58:01:01:03	*03:02:02:01	*04:03:01	NGS	
5214	*24	*33	*40 (B60)	*58	*03 (Cw10)	*04							SSO	
5462	*24	*33	*40	*58	*03	*04	*24:02	*33:03	*40:01	*58:01	*03:02	*04:03	SSO NGS	
5642	*24	*33	*40	*58	*03	*04							SSP	
6649	*24	*33	*40	*58									SSP	
8001	*24	*33	*40 (B60)	*58	*03 (Cw10)	*04							SSO	
8043	*24	*33	*40	*58	*03	*04	*24:02	*33:03	*40:01	*58:01	*03:02	*04:03	SSP SSO	A*24:352 A*24:353
8070							*24:02	*33:03	*40:01	*58:01	*03:02	*04:03	SBT	B*40:353

Table 14. Individual laboratory results for Cell #1612

Center	Low Resolution						High Resolution						Method	Other Alleles	
	HLA-A		HLA-B		HLA-C		HLA-A		HLA-B		HLA-C				
725	*33		*44	*58	*03	*07								SSO	
731	*33		*44	*58	*03	*07	*33:03:01G		*44:03:02	*58:01:01G	*03:02:01G	*07:01:01G		SSP SSO SBT	
745							*33:03:01		*44:03:02	*58:01:01	*03:02:02:01	*07:06		SSP SBT NGS	
747	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT		SSP SSO NGS	
762							*33:03:01		*44:03:02	*58:01:01	*03:02:02:01	*07:06		NGS	
771	*33		*44	*58	*03	*07	*33:03		*44:03	*58:01	*03:02	*07:01		SSO SBT	
774	*33		*44	*58	*03	*07								SSP SSO	
779	*33		*44	*58	*03	*07					*03:02			SSP SSO	
3186	*33	*33	*44	*58	*03	*07								SSO	
3545	*33		*44	*58	*03	*07	*33:03		*44:03	*58:01	*03:02	*07:01		SSP SSO SBT	C*07:06 C*07:18 C*07:343 C*07:419 C*07:458 C*07:591
3625							*33:03	*33:03	*44:03	*58:01	*03:02	*07:06			
3625							*33:03	*33:03	*44:03	*58:01	*03:02	*07:06			
3632	*33		*44	*58	*03	*07	*33:03		*44:03	*58:01	*03:02	*07:06		SSP SSO	
3766	*33		*44	*58	*03	*07								SSO	
3808	*33		*44	*58	*03	*07								SSP SBT	
4079	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT		SSP SSO	
4251	*33	*33	*44	*58	*03	*07	*33:03	*33:03	*44:03	*58:01	*03:02:01G	*07:01:01G		SSO SBT	
5133							*33:03:01		*44:03:02	*58:01:01:03	*03:02:02:01	*07:06		NGS	
5214	*33		*44	*58	*03 (Cw10)	*07								SSO	
5462	*33		*44	*58	*03	*07	*33:03		*44:03	*58:01	*03:02	*07:06		SSO NGS	
5642	*33		*44	*58	*03	*07								SSP	
6649	*33		*44	*58										SSP	
8001	*33		*44	*58	(Cw10)	*07								SSO	
8043	*33		*44	*58	*03	*07	*33:03		*44:03	*58:01	*03:02	*07:01:01G		SSP SSO	
8070							*33:03		*44:03	*58:01	*03:02	*07:01		SBT	

Table 15. Individual laboratory results for Cell #1609-16012 by serology

Investigator	Days Old	Cell No 1609 (Asian)								Cell No 1610 (Hispanic)								Cell No 1611 (Chinese)								Cell No 1612 (Asian)									
		Viab %	A33	B44	B46	Cw1	Bw4	Bw6	OTHERS	Viab %	A11	A31	B18	B61	Cw3	Cw7	Bw6	OTHERS	Viab %	A24	A33	B60	B58	Cw3	Cw4	Bw4	Bw6	OTHERS	Viab %	A33	B44	B58	Cw3	Cw7	Bw4
Cecka, J. Mic	2	>95	+	+	+		+	+		>95	+	+	+	+		+		>95	+	+	+	+			+	+		>95	+	+	+			+	
Dunckley, Hea	6	99	+	+							+	+	+	+					99	+	+	+	+					99	+	+	+				
Enczmann, J		90	+	+	+					90	+	+	+	+					90	+	+	+	+					90	+	+	+				
Fort, Marylis	2	95	+	+	+		+	+		95	+	+	+	+		+			NT									NT							
Hahn, Amy B.		100	+	+	+		+			100	+	+	+	+		+			100	+	+	+	+				Bw4 Bw6	100	+	+	+			+	
Hogan, Patric		90	+	+	+	+	+			90	+	+	+	+	+	+	+		90	+	+	+	+	+	+	+		90	+	+	+	+	+	+	
Latham, Katy	2	100	+	+	+		+	+		99	+	+	+	+		+			100	+	+	+	+			+	+	100	+	+	+			+	
Loewenthal ,		80	+	+	+	+	+	+		85	+	+	+	+	+	+	+		90	+	+	+	+	+		+	+	80	+	+	+	+	+	+	
Permpikul, Ve	5	90	+	+	+		+	+		90	A11.1		+			+	B60,A30		90	+	+	+	+			+	+	90	+	+	+			+	A34
Pule, Ziningi		70	A31	+			Cw3		A68	70	+	+	+	+	+	+			80	+	+	+	+	+	+		B52	80	+	+	+		+	A29,A30	
Renac, Virgin	2	90	+	+	+		+	+		90	+	+	+	B40		+			90	+	+	+	+		+	+	90	+	+	+			+		
Shai, Isaac	8	90	+	+	B62	+	+	+	A29,Cw3	92	+	+	+	B40	+	+	+	B48,A30	90	+	+	B40	+	+	+	+	Cw6,A29+	90	+	+	+	+	+	+	A29
Varnavidou-Ni	7	98	+	+	+		+	+		98	+	+	+	+		+			98	+	+	+	B17		+	+	98	+	+	B17			+		
Vidan-Jeras,	7	70	+	+	+	+	+			80	+	+	+	B40	+	+	+		65	+	+	+	+	+	+	+	85	+	+	+	+	+	+		
Villard, Jean	5	95	+	+	+	+	+	+	CW14	95	+	+	+	B40	+	+	+																		