

CELL EXCHANGE #414 JANUARY 15, 2020

Cells 1653-1656

The results for Cell Exchange #414 are summarized in Table 7 and Table 8. Molecular typing results for individual laboratories are listed in Tables 9 -16 for each sample and individual serological results for each sample are listed in Table 17. The haplotype frequencies used in this report are from the NMDP Bioinformatics website, <https://bioinformatics.bethematchclinical.org/>.

We are pleased to announce participants in this survey now have the option to report class II molecular typing results along with their class I results. We would like to thank those labs who have already begun to report their class II findings and encourage other labs to do so as well. Once the criteria for grading is met, we will grade and summarize the class II results.

Cell 1653. The reported class I type for this cell from a Chinese donor is A*33:03(A33)-B*58:01(B58)-C*03:02. The association of A*33:03-B*58:01-C*03:02 is the most common association observed in Asian populations, with HF = 0.04458. A*33:03, B*58:01, and C*03:02 were each reported by 100% of labs reporting at high resolution, with 4 labs assigning A*33:03:01, B*58:01:01, and C*03:02:02. A3 (100%) and B58 (89%) were reported by serology. Class II results are shown in Tables 10a and Table 10b.

Cell 1654. The reported class I type for this cell from a Hispanic donor is A*32:01(A32)-A*68:01(A28)-B*15:15(B15)-B*35:08(B35)-C*01:02-C*04:01. Likely associations present in this cell were A*68:01-B*15:15-C*01:02 and A*32:01-B*35:08-C*04:01, with respective HF = 0.00045 and 0.00126, in Hispanics. This cell was previously examined in the Exchange as cell 1575 (2016). In this present study, good agreement (>90%) was achieved once again for all loci. Among labs reporting by high resolution, 4 labs assigned A*32:01:01, A*68:01:02:01, B*35:08:01, C*01:02:01, and C*04:01:01:06. Among serology labs, 100% (8 of 8) reported A32, A28, B15, and B35. Two labs assigned A68 as the split of A28. The split of B15, however, remained unresolved, as 3 labs reported B62 (38%) and 2 others reported B75 (13%). Class II results are shown in Tables 12a and 12b.

Cell 1655. The reported class I type for this cell from a Caucasian donor is A*11:01(A11)-A*30:02(A30)-B*18:01(B18)-B*35:01(B35)-C*04:01-C*05:01. Likely associations present were A*11:01-B*18:01-C*05:01 and A*30:02-B*35:01-C*05:01, with respective HF = 0.00088 and 0.00031, in Caucasians. Good agreement (>90%) was achieved across all loci. Among labs reporting by high resolution, 3 labs assigned A*11:01:01, A*30:02:01:01, B*18:01:01, B*35:01:01, C*04:01:01:05, and C*05:01:01:01. A30, A11, B18, and B35 were each assigned by 100% of serology labs. Class II results are shown in Tables 14a and 14b.

Cell 1656. The reported class I type for this cell from a Hispanic donor is A*02:01(A2)-A*24:02(A24)-B*35:20(B35)-B*44:03(B44)-C*04:01-C*16:02. Likely associations present were A*02:01-B*44:03-C*16:02 and A*24:02-B*35:20-C*04:01, observed in Hispanics, with respective HF = 0.00043 and 0.00051. This cell was previously studied in the exchange as cells 1602 (2017) and 1536 (2014). In this most recent study, good agreement (<90%) was achieved among labs in the reporting of class I results. Among labs reporting by high resolution, 3 labs reported A*02:01:01, A*24:02:01, B*35:20:01, B*44:03:01, C*04:01:01, and C*16:02:01. By serology, A2 (100%), A24 (100%), B35 (75%), and B44 (100%) were assigned. Class II results are shown in Tables 16a and 16b.

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Table 8. Summary of the 414th Cell Exchange (Cell #1653- 1656)

Serological typing							
(Chinese) Cell 1653		(Hispanic) Cell 1654		(Caucasian) Cell 1655		(Hispanic) Cell 1656	
(9 Samples Typed)		(8 Samples Typed)		(7 Samples Typed)		(8 Samples Typed)	
A33	100.0%	A32	100.0%	A30	100.0%	A2	100.0%
	[100.0%]		[100.0%]		[100.0%]		[100.0%]
B58	88.9%	A68	75.0%	A11	85.7%	A24	100.0%
B17	11.1%	A28	25.0%	A11.1	14.3%		[100.0%]
	[100.0%]		[100.0%]		[100.0%]		
	[0.0%]	B15	50.00%	B18	100.0%	B35	75.0%
Cw3	11.1%	B62	37.50%	B35	100.0%	B44	100.0%
		B75	12.50%				[100.0%]
			[100.0%]	Cw4	28.6%	Cw4	12.5%
		B35	100.0%		[28.6%]		[12.5%]
Bw4	88.9%	Cw1	12.5%	Cw5	14.3%	Bw4	87.5%
					[14.3%]		
		Cw4	12.5%	Bw6	85.7%	Bw6	87.5%
			[12.5%]				
		Bw4	25.0%	Others Found		Others Found	
		Bw6	87.5%	Cw7	14.3%	B70	25.0%
						Cw6	12.5%
Others Found		Others Found					
B57	11.1%	Cw3	12.5%				
A74	11.1%						
Cw5	11.1%						
A34	11.1%						

Table 9. Individual laboratory results for Cell #1653 - Class I

Center	Low Resolution						High Resolution						Method	Other Alleles
	HLA-A		HLA-B		HLA-C		HLA-A		HLA-B		HLA-C			
278	*33	*33	*58	*58	*03	*03	*33:03	*33:03	*58:01	*58:01	*03:02	*03:02	SSP SSO	
725	*33		*58		*03								SSO	
745							*33:03:01		*58:01:01		*03:02:02		SSP SBT NGS	
747	*33		*58		*03		*33:03:01		*58:01:01:03		*03:02:02		SSP SSO NGS	
762							*33:03:01		*58:01:01:03		*03:02:02		NGS	
771	*33		*58		*03		*33:03		*58:01		*03:02		SSP SSO	
774	*33		*58		*03								SSP SSO	
3186	*33		*58		*03								SSO	
3545	*33		*58		*03		*33:03		*58:01		*03:02		SSO SBT	A*33:169 B*58:95
3632	*33		*58		*03		*33:03		*58:01		*03:02			
4079	*33		*58		*03		*33:03		*58:01		*03:02		SSP SSO	A*33:169 A*33:163
4251	*33	*33	*58	*58	*03	*03	*33:03:01G	*33:03:01G	*58:01:01G	*58:01:01G	*03:02:01G	*03:02:01G	SSO SBT	
5133							*33:03:01		*58:01:01		*03:02:02		NGS	
5214	*33		*58		*03(Cw10)								SSO RT-PCR	
5462	*33		*58		*03		*33:03		*58:01		*03:02		SSO NGS	
5642	*33		*58		*03									
6649	*33		*58										SSO	
8001	*33		*58		*03(Cw10)									

Table 10a: Individual laboratory results for Cell #1653 - Class II

Low resolution														
Center	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles
747	*03		3*PRESENT		*05		*02		*01			*04	SSP SSO NGS	
3186	*03		3*02		*05		*02		*01		*02(DP201)		SSO	
5214	*03(DR17)		3*02		*05		*02		*01		*02(DP201)	*04(DP401)	SSO RT-PCR	
5462	*03		3*02		*05		*02		*01	*01			SSO NGS	

Table 10b: Individual laboratory results for Cell #1653 - Class II

High resolution														
Center	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles
747	*03:01:01		3*02:02:01:01		*05:01:01		*02:01:01		*01:03:01	*01:03:01:04	*414:01	*04:01:01:02	SSP SSO NGS	DPB1*02:01 DPB1*702:01
5214											*02:01G	*04:01G	SSO RT-PCR	
5462	*03:01P		3*02:02		*05:01		*02:01		*01:03	*01:03	*02:01	*702:01	SSO NGS	DRB1*03:147

Table 11. Individual laboratory results for Cell #1654 - Class I

Center	Low Resolution						High Resolution						Method	Other Alleles
	HLA-A		HLA-B		HLA-C		HLA-A		HLA-B		HLA-C			
278	*32	*68	*15	*35	*01	*04	*32:01	*68:01	*15:15	*35:08	*01:02	*04:01	SSP SSO	
725	*32	*68	*15	*35	*01	*04							SSO	
745							*32:01:01:01	*68:01:02:01	*15:15	*35:08:01	*01:02:01	*04:01:01:06	SSP SBT NGS	
747	*32	*68	*15	*35	*01	*04	*32:01:01:01	*68:01:02:01	*15:15	*35:08:01	*01:02:01:01	*04:01:01:06	SSP SSO NGS	DPB1*124:01 DPB1*350:01
762							*32:01:01:01	*68:01:02:01	*15:15	*35:08:01:01	*01:02:01	*04:01:01:06	NGS	
771	*32	*68	*15	*35	*01	*04	*32:01	*68:01	*15:15	*35:08	*01:02	*04:01	SSP SSO	
774	*32	*68	*15	*35	*01	*04			*15:15	*35:08			SSP SSO	
3186	*32	*68	*15	*35	*01	*04							SSO	
3545	*32	*68	*15	*35	*01	*04	*32:01	*68:01	*15:15	*35:08	*01:02	*04:01	SSO SBT	
3632	*32	*68	*15	*35	*01	*04	*32:01	*68:01	*15:15	*35:08	*01:02	*04:01		
4079	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	SSP SSO	
4251	*32	*68	*15	*35	*01	*04	*32:01:01G	*68:01P	*15:15	*35:08:01G	*01:02:01G	*04:01P	SSO SBT	
5133							*32:01:01	*68:01:02:01	*15:15	*35:08:01:01	*01:02:01	*04:01:01:06	NGS	
5214	*32	*68	*15(B62)	*35	*01	*04							SSO RT-PCR	
5462	*32	*68	*15	*35	*01	*04	*32:01	*68:01	*15:15	*35:08	*01:02	*04:01	SSO NGS	
5642	*32	*68	*15	*35	*01	*04								
6649	*32	*68	*15	*35									SSO	
8001	*32	*68	*15(B62)	*35	*01	*04								

Table 12a: Individual laboratory results for Cell #1654 - Class II

Low resolution														
Center	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles
747	*04	*08	4*PRESENT		*03	*04	*03	*04	*01	*01	*03	*04	SSP SSO NGS	
3186	*04	*08	4*01	NP	*03	*04	*03	*04	*01		*03	*04(DP401)	SSO	
5214	*04	*08	4*01		*03	*04	*03(DQ8)	*04	*01		*03	*04(DP401)	SSO RT-PCR	
5462	*04	*08	4*01	NP	*03	*04	*03	*04	*01	*01			SSO NGS	

Table 12b: Individual laboratory results for Cell #1654- Class II

High resolution														
Center	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles
747	*04:03:01	*08:02:01	4*01:03:01		*03:01:01	*04:01:01	*03:02:01:01	*04:02:01	*01:03:01:02	*01:03:01:03	*03:01:01	*04:01:01:02	SSP SSO NGS	DPB1*124:01 DPB1*350:01
5214											*03:01G	*04:01G	SSO RT-PCR	
5462	*04:03	*08:02	4*01:03	NP	*03:01	*04:01	*03:02	*04:02	*01:03	*01:03	*03:01	*04:01	SSO NGS	

Table 13. Individual laboratory results for Cell #1655 - Class I

Center	Low Resolution						High Resolution						Method	Other Alleles
	HLA-A		HLA-B		HLA-C		HLA-A		HLA-B		HLA-C			
278	*11	*30	*18	*35	*04	*05	*11:01	*30:02	*18:01	*35:01	*04:01	*05:01	SSP SSO	
725	*11	*30	*18	*35	*04	*05							SSO	
745							*11:01:01:01	*30:02:01:01	*18:01:01	*35:01:01	*04:01:01:05	*05:01:01:01	SSP SBT NGS	
747	NT												SSP SSO NGS	
762							*11:01:01:01	*30:02:01:01	*18:01:01:01	*35:01:01:05	*04:01:01:05	*05:01:01:01	NGS	
771	*11	*30	*18	*35	*04	*05	*11:01	*30:02	*18:01	*35:01	*04:01	*05:01	SSP SSO	
774	*11	*30	*18	*35	*04	*05							SSP SSO	
3186	*11	*30	*18	*35	*04	*05							SSO	
														B*18:17N B*18:131 B*18:144 B*18:145 C*04:226 C*04:275 C*04:277 C*04:298 C*04:306 A*11:263 A*11:270 A*11:278 A*11:280 A*11:295 A*11:303 A*11:306 B*18:159 B*18:160 B*35:42 B*35:332 B*35:347 B*35:365 B*35:370 C*04:30 C*04:82 C*04:308 C*04:320 C*04:321+
3545	*11	*30	*18	*35	*04	*05	*11:01	*30:02	*18:01	*35:01	*04:01	*05:01	SSO SBT	
3632	*11	*30	*18	*35	*04	*05	*11:01	*30:02	*18:01	*35:01	*04:01	*05:01		
4079	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	SSP SSO	
4251	*11	*30	*18	*35	*04	*05	*11:01:01G	*30:02:01G	*18:01:01G	*35:01:01G	*04:01P	*05:01:01G	SSO SBT	
5133							*11:01:01	*30:02:01:01	*18:01:01	*35:01:01	*04:01:01:05	*05:01:01:01	NGS	
5214	*11	*30	*18	*35	*04	*05							SSO RT-PCR	
5462	*11	*30	*18	*35	*04	*05	*11:01	*30:02	*18:01	*35:01	*04:01	*05:01	SSO NGS	DRB1*03:147
5642	*11	*30	*18	*35	*04	*05								
6649	*11	*30	*18	*35									SSO	
8001	*11	*30	*18	*35	*04	*05								

Table 14a: Individual laboratory results for Cell #1655 - Class II

Low resolution														
Center	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles
747	NT												SSP SSO NGS	
3186	*03	*08	3*02	NP	*04	*05	*02	*04	*01				*04(DP401)	SSO
5214	*03(DR17)	*08	3*02		*04	*05	*02	*04	*01				*04(DP401)	SSO RT-PCR
5462	*03	*08	3*02	NP	*04	*05	*02	*04	*01					SSO NGS

Table 14b: Individual laboratory results for Cell #1655 - Class II

High resolution															
Center	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles	
747	NT												SSP SSO NGS		
5214						*05:01							*04:01G	SSO RT-PCR	
5462	*03:01P	*08:01	3*02:02	NP	*04:01	*05:01	*02:01	*04:02	*01:03				*04:01	SSO NGS	DRB1*03:147

Table 15. Individual laboratory results for Cell #1656 - Class I

Center	Low Resolution						High Resolution						Method	Other Alleles
	HLA-A		HLA-B		HLA-C		HLA-A		HLA-B		HLA-C			
278	*02	*24	*35	*44	*04	*16	*02:01	*24:02	*35:20	*44:03	*04:01	*16:02	SSP SSO	
725	*02	*24	*35	*44	*04	*16							SSO	
745							*02:01:01:01	*24:02:01:01	*35:20:01	*44:03:01	*04:01:01	*16:02:01	SSP SBT NGS	
747	NT												SSP SSO NGS	
762							*02:01:01:01	*24:02:01:01	*35:20:01	*44:03:01	*04:01:01	*16:02:01	NGS	
771	*02	*24	*35	*44	*04	*16	*02:01	*24:02	*35:20	*44:03	*04:01	*16:02	SSP SSO	
774	*02	*24	*35	*44	*04	*16			*35:20				SSP SSO	
3186	*02	*24	*35	*44	*04	*16							SSO	
														A*02:629 A*02:642 A*02:665 A*24:402 A*24:418 A*24:419 A*24:422 B*44:298 C*04:275 C*04:277 C*04:298 C*04:306 C*04:308 C*04:320 C*04:321 C*16:63 A*02:686 A*02:689 A*02:704 A*02:716 A*02:719 A*02:722 A*02:724 A*02:740 A*02:742 A*02:744 A*02:753 A*02:761 A*02:763 A*02:765+
3545	*02	*24	*35	*44	*04	*16	*02:01	*24:02	*35:20	*44:03	*04:01	*16:02	SSO SBT	
3632	*02	*24	*35	*44	*04	*16	*02:01	*24:02	*35:20	*44:03	*04:01	*16:02		
														C*04:75 C*04:79 C*04:84 C*04:146 B*44:298 C*04:35 A*02:719 A*02:742 A*02:819 A*02:704
4079	*02	*24	*35	*44	*04	*16	*02:01	*24:02	*35:20	*44:03	*04:01	*16:02	SSP SSO	
4251	*02	*24	*35	*44	*04	*16	*02:01:01G	*24:02P	*35:20	*44:03:01G	*04:01P	*16:02:01G	SSO SBT	
5133							*02:01:01	*24:02:01	*35:20:01	*44:03:01	*04:01:01	*16:02:01	NGS	
5214	*02	*24	*35	*44	*04	*16							SSO RT-PCR	
5462	*02	*24	*35	*44	*04	*16	*02:01	*24:02	*35:20	*44:03	*04:01	*16:02	SSO NGS	
5642	*02	*24	*35	*44	*04	*16								
6649	*02	*24	*35	*44									SSO	
8001	*02	*24	*35	*44	*04	*16								

Table 16a: Individual laboratory results for Cell #1656 - Class II

Low resolution														
Center	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles
3186	*04	*13	3*01	4*01	*01	*03	*03	*06	*02		*05	*13	SSO	
5214	*04	*13	3*01	4*01	*01	*03	*03(DQ8)	*06	*02		*05	*13	SSO RT-PCR	
5462	*04	*13	3*01	4*01	*01	*03	*03	*06	*02	*02			SSO NGS	

Table 16b: Individual laboratory results for Cell #1656 - Class II

High resolution														
Center	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles
747	NT												SSP SSO NGS	
5214											*05:01G	*13:01G	SSO RT-PCR	
5462	*04:07	*13:01	3*01:01P	4*01:03	*01:03	*03:01	*03:02	*06:03	*02:01	*02:01	*05:01P	*13:01P	SSO NGS	DPB1*107:01 DPB1*135:01 DPB1*519:01 DRB3*01:62

Table 17. Individual laboratory results for Cell #1653-1656 by serology

Investigator	Cell No 1653 (Chinese)							Cell No 1654 (Hispanic)							Cell No 1655 (Caucasian)							Cell No 1656 (Hispanic)												
	Days Old	Viab %	A33	B58	Cw3	Bw4	OTHERS	Viab %	A32	A68	B15	B35	Cw1	Cw4	Bw6	OTHERS	Viab %	A30	A11	B18	B35	Cw4	Cw5	Bw6	OTHERS	Viab %	A2	A24	B35	B44	Cw4	Bw4	Bw6	OTHERS
Cecka, J. Mic	2	>95	+	+		+		>95	+	+	+	+			+		>95	+	+	+	+			+		>95	+	+	+	+		+	+	
Fort, Marylis	3	98	+	+		+																				95	+	+	+	+		+	+	
Latham, Katy	3	98	+	+		+		98	+	+	+	+			+		98	+	+	+	+			+		98	+	+	+	+		+	+	
Permpikul, Ve	6	90	+	+		+	A74, B57	90	+	+	B62	+			+		90	+	A11.1	+	+			+		90	+	+	B70	+	+	+	+	
Renac, Virgin		100	+	+		+		100	+	A28	+	+			+		100	+	+	+	+			+		100	+	+	B70	+	+	+	+	
Shai, Isaac	14																																	
Stylianou, Ca		85	+	+		+		85	+	+	B75	+			+	Bw4	80	+	+	+	+			+		85	+	+	+	+		+	+	
Tabata, Lucas		90	+	B17			A34, Cw5	90	+	+	B62	+				Cw3	90	+	+	+	+	+			Cw7	90	+	+	+	+				
Vidan-Jeras,	6	80	+	+	+	+		80	+	+	B62	+	+	+	+		85	+	+	+	+	+	+	+		80	+	+	+	+	+	+	+	Cw6
Villard, Jean		40	+	+		+		40	+	A28	+	+			+	Bw4	NT									NT								