

CELL EXCHANGE #391

APRIL 1, 2016

Cells 1561-1563

The results for Cell Exchange #391 are summarized in Table 9 and Table 10. Molecular typing results for individual laboratories are listed in Tables 11

-13 for each sample and individual serology results for each sample are listed in Table 14. There were only 3 cells typed in this Exchange study.

Cell 1561. The consensus type for this sample from a Hispanic donor is A*29:02(A29)-A*31:01(A31)-B*42:01(B42)-B*44:03(B44)-C*16:01-C*17:01 (Cw17). The likely associations in this cell are B*44:03-C*16:01 and B*42:01-C*17:01, with respective frequencies of HF=0.03311 and 0.00602, in Hispanics.

Two splits of A19 were present in this cell, A29 and A31. Each were reported in complete consensus and confirmed as A*29:02 (89%) and A*31:01 (100%). A*29:02:01 was assigned by 6 labs and 5 labs assigned A*31:01:02. B42 and B44 were reported by 96% and 100%, respectively. B*42:01 and B*44:03 were assigned in complete consensus by labs reporting at high resolution. B*42:01:01 and B*44:03:01 were each assigned by 7 labs. The C-locus types were C*16:01 (100%) and C*17:01 (100%). Cw17 was reported by 7 labs.

Cell 1562. The consensus type for this sample from a Hispanic donor is A*02:01(A2)-A*29:02(A29)-B*44:03(B44)-B*51:13(B51)-C*15:02-C*16:01. An offspring of this cell was typed as extract 377 in 2007. The offspring was found to share the A*02:01-B*51:13-C*15:02 haplotype of this cell. The other haplotype present is A*29:02-B*44:03-C*16:01, commonly observed in Hispanics, with HF=0.02457.

This cell was studied numerous times in the exchange as cells 1496 (2013), 1434 (2011), 1371 (2009), 1340 (2008), 1302 (2007), and 1271 (2006), as correctly identified by Claas and Rees. In this present retyping, A2 (100%), A29 (100%), B44 (100%), and B51 (96%) were confirmed as A*02:01 (100%), A*29:02 (94%), B*44:03 (100%), and B*51:13 (100%), respectively. B*44:03:01 was assigned by 7 labs, and B*51:13:01 was assigned by 8 labs. The C-locus types were reported as C*15:02 (100%) and C*16:01 (100%), with 6 labs reporting C*15:02:01 and 7 labs reporting C*16:01:01.

Cell 1563. The consensus type for this sample from a Hispanic donor is A*01:01(A1)-A*02:01(A2)-B*27:05(B27)-B*49:01(B49)-C*02:02(Cw2)-C*07:01 (Cw7). The likely associations present in this cell are B*27:05-C*02:02 and B*49:01-C*07:01, with respective frequencies of 0.00702 and 0.02257, in Hispanics.

The reported class I types were A*01:01 (100%), A*02:01 (100%), B*27:05 (94%), B*49:01 (100%), C*02:02 (100%), and C*07:01 (100%). A*02:01:01:01, C*02:02:02:01 and C*07:01:01:01 were assigned by 1 lab using 3rd generation sequencing.

For the first time, NGS results were reported in the Exchange. We would like to thank the NGS labs for graciously sharing their typing results.

The haplotype frequencies used in this report are from the NMDP Bioinformatics website, <http://bioinformatics.nmdp.org/>.

NEXT MAILING DATE: May 4, 2016

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Table 9. Summary of the 391ST Cell Exchange (Cell #1561-1563)

DNA typing

Cell 1561	
26 low/18 high labs - A	%(n)
A*29:02:01:02	11(2)
A*29:02:01	22(4)
A*29:02:01G	6 (1)
A*29:02	50(9)
A*29:01	11(2)
A*29	100(26)
26 low/18 high labs - A	%(n)
A*31:01:02	28(5)
A*31:01:02G	11(2)
A*31:01	61(11)
A*31	100(26)
26 low/19 high labs - B	%(n)
B*42:01:01	37(7)
B*42:01	63(12)
B*42	100(26)
26 low/18 high labs - B	%(n)
B*44:03:01	39(7)
B*44:03	61(11)
B*44	100(26)
25 low/18 high Labs - C	%(n)
C*16:01:01	22(4)
C*16:01	78(14)
C*16	100(25)
25 low/18 high Labs - C	%(n)
C*17:01:01:02	11(2)
C*17:01:01	11(2)
C*17:01:01G	6 (1)
C*17:01	72(13)
C*17	100(25)

Cell 1562	
26 low/18 high labs - A	%(n)
A*02:01:01:01	11(2)
A*02:01:01	16(3)
A*02:01:01G	6 (1)
A*02:01	67(12)
A*02	100(26)
26 low/18 high labs - A	%(n)
A*29:02:01:01	11(2)
A*29:02:01	16(3)
A*29:02:01G	6 (1)
A*29:02	61(11)
A*29:01	6 (1)
A*29	100(26)
26 low/18 high labs - B	%(n)
B*44:03:01	39(7)
B*44:03	61(11)
B*44	100(26)
25 low/21 high labs - B	%(n)
B*51:13:01	38(8)
B*51:13	62(13)
B*51	100(25)
25 low/18 high Labs - C	%(n)
C*15:02:01	33(6)
C*15:02:01G	11(2)
C*15:02	56(10)
C*15	100(25)
25 low/18 high Labs - C	%(n)
C*16:01:01	39(7)
C*16:01	61(11)
C*16	100(25)

Cell 1563	
24 low/17 high labs - A	%(n)
A*01:01:01:01	12(2)
A*01:01:01	6 (1)
A*01:01:01G	6 (1)
A*01:01	76(13)
A*01	100(26)
24 low/17 high labs - A	%(n)
A*02:01:01:01	6 (1)
A*02:01:01	12(2)
A*02:01:01G	6 (1)
A*02:01	76(13)
A*02	100(24)
24 low/17 high labs - B	%(n)
B*27:05:02	18(3)
B*27:05:02G	12(2)
B*27:05	64(11)
B*27:03	6 (1)
B*27	100(24)
24 low/17 high labs - B	%(n)
B*49:01:01	18(3)
B*49:01:01G	6 (1)
B*49:01	76(13)
B*49	100(24)
23 low/17 high Labs - C	%(n)
C*02:02:02:01	6 (1)
C*02:02:02	12(2)
C*02:02:02G	6 (1)
C*02:02	76(13)
C*02	100(23)
23 low/17 high Labs - C	%(n)
C*07:01:01:01	6 (1)
C*07:01:01	12(2)
C*07:01:01G	12(2)
C*07:01	70(12)
C*07	100(17)

Table 10. Summary of the 391st Cell Exchange (Cell #1561-1563)

Serological typing

(Hispanic) Cell 1561 (23 Samples Typed)	
A29	100.0% [100.0%]
A31	100.0% [100.0%]
B42	95.7%
B44	100.0% [100.0%]
Cw17	30.4%
Bw4	82.6%
Bw6	82.6%
Others Found	
B7	4.3%
Cw2	4.3%
Cw7	4.3%

(Hispanic) Cell 1562 (23 Samples Typed)	
A2	100.0% [100.0%]
A29	100.0% [100.0%]
B44	100.0% [100.0%]
B51	95.7%
B5	4.3% [100.0%]
Bw4	82.6%
Others Found	
Cw4	4.3%
Cw6	4.3%
B41	4.3%
Cw5	4.3%

(Hispanic) Cell 1563 (21 Samples Typed)	
A1	100.0%
A2	100.0% [100.0%]
B27	100.0% [100.0%]
B49	90.5%
B21	4.8% [95.2%]
Cw2	52.4%
Cw7	52.4%
Bw4	81.0%
Others Found	
B47	4.8%
Cw6	4.8%

Table 11. Individual laboratory results for Cell #1561

Center	Investigator	Low Resolution						High Resolution						Method	Other Alleles
		HLA-A		HLA-B		HLA-C		HLA-A		HLA-B		HLA-C			
5462	Arnold , Paula							*29:02	*31:01	*42:01	*44:03	*16:01	*17:01	SSP SSO SBT	
5133	Askar , Medhat	*29	*31	*42	*44	*16	*17	*29:02:01	*31:01:02	*42:01:01	*44:03:01	*16:01:01	*17:01:01	SSO SBT NGS	
4492	Caillat-Zucman , S	*29	*31	*42	*44	*16	*17							SSP	
774	Cecka , J. Michael	*29	*31	*42	*44	*16	*17			*42:01				SSP SSO	B*42:10/*42:15
8070	Chang , Uckjin							*29:02	*31:01	*42:01	*44:03	*16:01	*17:01	SBT	
798	Claas , F.H.J.							*29:02:01	*31:01:02	*42:01:01	*44:03:01	*16:01:01	*17:01:01	SBT	
3632	Colombe , Beth W	*29	*31	*42	*44	*16	*17	*29:02	*31:01	*42:01	*44:03	*16:01	*17:01	SSP SSO	
779	Daniel , Claude	*29	*31	*42	*44	*16	*17							SSO	
3766	Dunckley , Heath	*29	*31	*42	*44	*16	*17							SSO	
5214	Eckels/CPMC	*29	*31	*42	*44	*16	*17							SSO	
762	Fischer , Gottfried							*29:02:01:02	*31:01:02	*42:01:01	*44:03:01	*16:01:01	*17:01:01:02	SBT OTHER	A*29:32, A*31:06
4079	Fort , Marylise	*29	*31	*42	*44	*16	*17							SSP	
3545	Goldstein , Steven	*29	*31	*42	*44	*16	*17	*29:02	*31:01	*42:01	*44:03	*16:01	*17:01	SSO SBT	C*17:02/*17:03
810	Hamdi , Nuha							*29:01	*31:01	*42:01	*44:03	*16:01	*17:01	SSO	
8043	Hod , Reut	*29	*31	*42	*44	*16	*17	*29:02	*31:01	*42:01	*44:03	*16:01	*17:01	SSP SSO	
771	Israel , Shoshana	*29	*31	*42	*44	*16	*17	*29:02	*31:01	*42:01	*44:03	*16:01	*17:01	SSO SBT	
725	Lardy , N.M.	*29	*31	*42	*44	*16	*17							SSP SSO	
745	Latham , Katy							*29:02:01:02	*31:01:02	*42:01:01	*44:03:01	*16:01:01	*17:01:01:02	SSP SBT Gen-3	
278	Lee , Jar-How	*29	*31	*42	*44	*16	*17	*29:01	*31:01	*42:01	*44:03	*16:01	*17:01		
6649	Lim , Young Ae	*29	*31	*42	*44									SSP	
731	Loewenthal , Ron	*29	*31	*42	*44	*16	*17	*29:02:01G	*31:01:02G	*42:01:01	*44:03:01	*16:01	*17:01	SSP SSO SBT	C*16:50, C*17:23
54	Pancoska , Carol	*29	*31	*42	*44	*16	*17								
8001	Rao , Prakash	*29	*31	*42	*44	*16	*17								
3625	Rees , Tracey	*29	*31	*42	*44	*16	*17	*29:02	*31:01	*42:01	*44:03	*16:01	*17:01		C*16:58, C*17:02/*17:03
1160	Rosen-Bronson , S	*29	*31	*42	*44	*16	*17	*29:02	*31:01	*42:01	*44:03	*16:01	*17:01	SSO SBT	
793	Rubocki , Ronald	*29	*31	*42	*44	*16	*17								
4251	Schiller , Jennifer	*29	*31	*42	*44	*16	*17	*29:02	*31:01:02G	*42:01	*44:03	*16:01	*17:01:01G	SSO SBT	
3808	Thornton , Alycia	*29	*31	*42	*44	*16	*17							SSP	
747	Tiercy , Jean-Marie	*29	*31	*42	*44	*16	*17	*29:02:01	*31:01	*42:01:01	*44:03:01	*16:01	*17:01	SSP SSO SBT	
5642	Varnavidou-Nicola	*29	*31	*42	*44	*16	*17								
3186	Watson , Narelle	*29	*31	*42	*44	*16	*17							SSO	
16	Zhang , Aiwen	*29	*31	*42	*44	*16	*17	*29:02:01	*31:01:02	*42:01:01	*44:03:01	*16:01	*17:01	SSO SBT	A*29:32, A*31:06, B*42:10, B*44:192, C*16:02:01, C*17:22

Table 12. Individual laboratory results for Cell #1562

Center	Investigator	Low Resolution						High Resolution						Method	Other Alleles
		HLA-A		HLA-B		HLA-C		HLA-A		HLA-B		HLA-C			
5462	Arnold , Paula							*02:01	*29:02	*44:03	*51:13	*15:02	*16:01	SSP SSO SBT	
5133	Askar , Medhat	*02	*29	*44	*51	*15	*16	*02:01:01	*29:02:01	*44:03:01	*51:13:01	*15:02:01	*16:01:01	SSO SBT NGS	
4492	Caillat-Zucman , S	*02	*29	*44	*51	*15	*16							SSP	
774	Cecka , J. Michael	*02	*29	*44	*51	*15	*16				*51:13			SSP SSO	
8070	Chang , Uckjin							*02:01	*29:02	*44:03	*51:13	*15:02	*16:01	SBT	
798	Claas , F.H.J.							*02:01:01	*29:02:01	*44:03:01	*51:13:01	*15:02:01	*16:01:01	SBT	
3632	Colombe , Beth W	*02	*29	*44	*51	*15	*16	*02:01	*29:02	*44:03	*51:13	*15:02	*16:01	SSP SSO	
779	Daniel , Claude	*02	*29	*44	*51	*15	*16							SSO	
3766	Dunckley , Heath	*02	*29	*44	*51	*15	*16							SSO	
5214	Eckels/CPMC	*02	*29	*44		*15	*16				*51:13			SSO	
762	Fischer , Gottfried							*02:01:01:01	*29:02:01:01	*44:03:01	*51:13:01	*15:02:01	*16:01:01	SBT OTHER	
4079	Fort , Marylise	*02	*29	*44	*51	*15	*16							SSP	
3545	Goldstein , Stever	*02	*29	*44	*51	*15	*16	*02:01	*29:02	*44:03	*51:13	*15:02	*16:01	SSO SBT	C*15:87
810	Hamdi , Nuha							*02:01	*29:01	*44:03	*51:13:01	*15:02	*16:01	SSO	
8043	Hod , Reut	*02	*29	*44	*51	*15	*16	*02:01	*29:02	*44:03	*51:13	*15:02	*16:01	SSP SSO	
771	Israel , Shoshana	*02	*29	*44	*51	*15	*16	*02:01	*29:02	*44:03	*51:13	*15:02	*16:01	SSO SBT	
725	Lardy , N.M.	*02	*29	*44	*51	*15	*16							SSP SSO	
745	Latham , Katy							*02:01:01:01	*29:02:01:01	*44:03:01	*51:13:01	*15:02:01	*16:01:01	SSP SBT Gen-3	
278	Lee , Jar-How	*02	*29	*44	*51	*15	*16	*02:01	*29:02	*44:03	*51:13	*15:02	*16:01		
6649	Lim , Young Ae	*02	*29	*44	*51									SSP	
731	Loewenthal , Ron	*02	*29	*44	*51	*15	*16	*02:01:01G	*29:02:01G	*44:03:01	*51:13:01	*15:02:01G	*16:01:01	SSP SSO SBT	
54	Pancoska , Carol	*02	*29	*44	*51	*15	*16								
8001	Rao , Prakash	*02	*29	*44	*51	*15	*16								
3625	Rees , Tracey	*02	*29	*44	*51	*15	*16	*02:01	*29:02	*44:03	*51:13	*15:02	*16:01		C*16:58
1160	Rosen-Bronson ,	*02	*29	*44	*51	*15	*16	*02:01	*29:02	*44:03	*51:13	*15:02	*16:01	SSO SBT	
793	Rubocki , Ronald	*02	*29	*44	*51	*15	*16								
4251	Schiller , Jennifer	*02	*29	*44	*51	*15	*16	*02:01	*29:02	*44:03	*51:13	*15:02:01G	*16:01	SSO SBT	
3808	Thornton , Alycia	*02	*29	*44	*51	*15	*16				*51:13			SSP	
747	Tiercy , Jean-Mari	*02	*29	*44	*51	*15	*16	*02:01:01	*29:02:01	*44:03:01	*51:13:01	*15:02:01	*16:01:01	SSP SSO SBT	
5642	Varnavidou-Nicola	*02	*29	*44	*51	*15	*16								
3186	Watson , Narelle	*02	*29	*44	*51	*15	*16							SSO	
16	Zhang , Aiwen	*02	*29	*44	*51	*15	*16	*02:01	*29:02	*44:03:01	*51:13:01	*15:02:01	*16:01:01	SSO SBT	A*02:334, A*29:22, C*15:07/*15:75, C*16:02/*16:40

Table 13. Individual laboratory results for Cell #1563

Center	Investigator	Low Resolution						High Resolution						Method	Other Alleles
		HLA-A		HLA-B		HLA-C		HLA-A		HLA-B		HLA-C			
5462	Arnold , Paula							*01:01	*02:01	*27:05	*49:01	*02:02	*07:01	SSP SSO SBT	
5133	Askar , Medhat	*01	*02	*27	*49	*02	*07	*01:01:01	*02:01:01	*27:05:02	*49:01:01	*02:02:02	*07:01:01	SSO SBT NGS	
4492	Caillat-Zucman , S	*01	*02	*27	*49	*02	*07							SSP	
774	Cecka , J. Michael	*01	*02	*27	*49	*02	*07							SSP SSO	
8070	Chang , Uckjin							*01:01	*02:01	*27:05	*49:01	*02:02	*07:01	SBT	
798	Claas , F.H.J.							*01:01:01:01	*02:01:01	*27:05:02	*49:01:01	*02:02:02	*07:01:01	SBT	
3632	Colombe , Beth W	*01	*02	*27	*49	*02	*07	*01:01	*02:01	*27:05	*49:01	*02:02	*07:01	SSP SSO	
779	Daniel , Claude	*01	*02	*27	*49	*02	*07							SSO	
3766	Dunckley , Heather	*01	*02	*27	*49	*02	*07							SSO	
5214	Eckels/CPMC	*01	*02	*27	*49	*02	*07							SSO	
762	Fischer , Gottfried							*01:01	*02:01	*27:05	*49:01	*02:02	*07:01	SBT OTHER	A*02:01L, C*07:06/*07:18/ *07:343/*07:419
4079	Fort , Marylise														
3545	Goldstein , Steven	*01	*02	*27	*49	*02	*07	*01:01	*02:01	*27:05	*49:01	*02:02	*07:01	SSO SBT	A*01:01:01:02N, B*27:13, C*07:06/*07:18/ *07:343
810	Hamdi , Nuha							*01:01	*02:01	*27:03	*49:01	*02:02	*07:01	SSO	
8043	Hod , Reut	*01	*02	*27	*49	*02	*07	*01:01	*02:01	*27:05	*49:01	*02:02	*07:01	SSP SSO	
771	Israel , Shoshana	*01	*02	*27	*49	*02	*07	*01:01	*02:01	*27:05	*49:01	*02:02	*07:01	SSO SBT	
725	Lardy , N.M.	*01	*02	*27	*49	*02	*07							SSP SSO	
745	Latham , Katy							*01:01:01:01	*02:01:01:01	*27:05:02	*49:01:01	*02:02:02:01	*07:01:01:01	SSP SBT Gen-3	
278	Lee , Jar-How	*01	*02	*27	*49	*02	*07	*01:01	*02:01	*27:05	*49:01	*02:02	*07:01		C*02:09
6649	Lim , Young Ae	*01	*02	*27	*49									SSP	
731	Loewenthal , Ron	*01	*02	*27	*49	*02	*07	*01:01:01G	*02:01:01G	*27:05:02G	*49:01:01G	*02:02:02G	*07:01:01G	SSP SSO SBT	
54	Pancoska , Carol	*01	*02	*27	*49	*02	*07								
8001	Rao , Prakash	*01	*02	*27	*49	*02	*07								
3625	Rees , Tracey	*01	*02	*27	*49	*02	*07	*01:01	*02:01	*27:05	*49:01	*02:02	*07:01		
1160	Rosen-Bronson ,	*01	*02	*27	*49	*02	*07	*01:01	*02:01	*27:05	*49:01	*02:02	*07:01	SSO SBT	
793	Rubocki , Ronald	*01	*02	*27	*49	*02	*07								
4251	Schiller , Jennifer	*01	*02	*27	*49	*02	*07	*01:01	*02:01	*27:05:02G	*49:01	*02:02	*07:01:01G	SSO SBT	
3808	Thornton , Alycia	*01	*02	*27	*49	*02	*07							SSP	
747	Tiercy , Jean-Mar	NT												SSP SSO SBT	
5642	Varnavidou-Nicola	*01	*02	*27	*49	*02	*07								
3186	Watson , Narelle	*01	*02	*27	*49	*02	*07							SSO	
16	Zhang , Aiwen	*01	*02	*27	*49	*02	*07	*01:01	*02:01	*27:05	*49:01	*02:02	*07:01	SSO SBT	A*01:30/*01:66/*01:98/*01: :100, A*02:338/*02:246/*02:346 /*02:262, B*27:13, C*02:27:01/*02:55/*02:75, C*07:09/*07:16/*07:40

Table 14. Individual laboratory results for Cell #1561-1563 by serology

Investigator	Days Old	Cell No 1561 (Hispanic)									Cell No 1562 (Hispanic)						Cell No 1563 (Hispanic)									
		Viab %	A29	A31	B42	B44	Cw17	Bw4	Bw6	OTHERS	Viab %	A2	A29	B44	B51	Bw4	OTHERS	Viab %	A1	A2	B27	B49	Cw2	Cw7	Bw4	OTHERS
Cecka, J. Mic	3	95	+	+	+	+		+	+		95	+	+	+	+	+		95	+	+	+	+			+	
Claas, F.H.J.	6	90	+	+	+	+		+	+		90	+	+	+	+	+		90	+	+	+	+	+		+	
Dunckley, Hea	7	95	+	+	+	+					95	+	+	+	+			95	+	+	+	+				
Enczmann, J		95	+	+	+	+					95	+	+	+	+			95	+	+	+	+				
Esteves Kondo	3	98	+	+	+	+	+	+	+		98	+	+	+	+	+		98	+	+	+	+	+	+	+	+
Fort, Marylis	3	90	+	+	+	+		+	+		95	+	+	+	+	+										
Hahn, Amy B.	3	98	+	+	+	+	+	+	+		99	+	+	+	+	+	Cw6	99	+	+	+	+	+		+	Cw6
Kvam, Vonnett	3	93	+	+	+	+	+	+	+		93	+	+	+	+	+		93	+	+	+		+	+	+	B47
Latham, Katy	3	80	+	+	+	+		+	+		90	+	+	+	+	+		90	+	+	+	+			+	
Loewenthal ,		85	+	+	+	+		+	+		50	+	+	+	+	+		90	+	+	+	+	+	+	+	
Pancoska, Car	3	98	+	+	+	+		+	+		98	+	+	+	+	+		98	+	+	+	+			+	
Permpikul, Ve	6	90	+	+	+	+		+	+		90	+	+	+	+	+		90	+	+	+	+			+	
Pule, Ziningi		80	+	+		+				B7	80	+	+	+	+		Cw4, B41		+	+	+	+		+		
Rees, Tracey	3	70	+	+	+	+	+	+	+		90	+	+	+	+	+		90	+	+	+	+	+	+	+	+
Renac, Virgin	3	100	+	+	+	+		+	+		100	+	+	+	+	+		100	+	+	+	B21			+	
Rosen-Bronson	2	90	+	+	+	+		+	+		90	+	+	+	+	+		90	+	+	+	+	+	+	+	+
Rubocki, Rona		98	+	+	+	+	+	+	+		98	+	+	+	+	+		98	+	+	+	+	+	+	+	+
Shai, Isaac	8	94	+	+	+	+	+	+	+	Cw2, Cw7	90	+	+	+	B5	+	Cw5	92	+	+	+	+		+	+	
Thornton, Aly		85	+	+	+	+		+	+		85	+	+	+	+	+		85	+	+	+	+	+	+	+	+
Tiercy, Jean-	6	60	+	+	+	+		+	+		60	+	+	+	+	+										
Varnavidou-Ni			+	+	+	+		+	+			+	+	+	+	+			+	+	+	+			+	
Vidan-Jeras,	7	80	+	+	+	+		+	+		80	+	+	+	+	+		90	+	+	+	+	+	+	+	+
Watson, Narel	8	0									0							0								
Zhang, Aiwen	2	95	+	+	+	+	+				95	+	+	+	+			95	+	+	+	+	+	+		