

REPORT OF THE 398th CELL EXCHANGE MAY 3, 2017

B-cell Lines	537-538
Cells	1589-1592
Sera	1217-1220

B-cell Line Exchange #269

The results for B-cell Line Exchange #269 are summarized in Tables 1 - 2 and individual laboratory results reported for each sample are listed in Tables 3 - 8. We would like to express our appreciation to **Eric Mickelson and John Hansen, Fred Hutchinson Cancer Research Center**, for providing us with the many interesting workshop cells typed in the exchange over the years.

We also wish to thank the labs performing NGS typing for sharing their results and encourage other NGS labs to do so as well. The haplotype frequencies used in this report are from the NMDP Bioinformatics website, <http://bioinformatics.nmdp.org/>.

Ter-537. The reported consensus type for this sample from a Hispanic donor is DRB1*10:01-DRB1*16:01-DRB5*02:02-DQA1*01:02-DQA1*01:05-DQB1*05:01-DQB1*05:02-DPA1*01:03-DPB1*02:01-DB1*04:01/A*24:02-A*29:01-B*07:05-B*27:02-C*02:02-C*15:05. One likely haplotype present in this cell is DRB1*10:01-DQA1*01:05-DQB1*05:01, observed in previous exchange cells Ter 440 (same as Ter 358 and Ter 305) and Ter 285 (same as Ter 121). The other likely association present is DRB1*16:01-DRB5*02:02-DQA1*01:02-DQB1*05:02, observed in the workshop cell, IHW9015 (same as Ter 228). The DRB1*10:01-DQB1*05:01 and DRB1*16:01-DQB1*05:02 associations in this cell are observed in Hispanics, with respective HF=0.01809 and HF=0.00881.

This cell is FH06, studied in the international workshops as IHW9380. It was also previously studied in the exchange as extract 387 (2007). In this present study, DRB1*16:01 was reported by 100% of labs reporting at high resolution, with 8 labs assigning DRB1*10:01:01 and DRB1*16:01:01. Two subtypes of DQA1*01 (DQA1*01:02 and DQA1*01:05) were present in this cell, along with 2 subtypes of DQB1*05 (DQB1*05:01 and DQB1*05:02); each were reported in complete consensus. For class I, A*24:02, A*29:01, B*07:05, B*27:02, C*02:02, and C*15:05 were each assigned in complete consensus, with A*24:02:01:01, A*29:01:01:01 and C*02:02:02:01 assigned by labs reporting by NGS.

Ter-538. The consensus type for this sample from a Caucasian donor is DRB1*04:04-DRB1*16:04-DRB4*01:03-DRB5*02:02-DQA1*01:02-DQA1*03:01-DQB1*03:02-DQB1*05:02-DPA1*01:03-DPB1*03:01-DPB1*06:01/A*02:01-A*24:02-B*15:01-B*51:01-C*03:03-C*14:02. One possible haplotype present in this cell is DRB1*04:04-DRB4*01:03-DQA1*03:01-DQB1*03:02, observed in a number of previous exchange cells, most recently, Ter 481 (same as Ter 378 and Ter 329) and Ter 453 (same as Ter 204). The DRB1*04:04-DQB1*03:02 association in this cell is observed commonly in Caucasian, with HF=0.03557. The other likely haplotype in this cell is DRB1*16:04-DRB5*02:02-DQA1*01:02-DQB1*05:02-DPB1*03:01, observed in BONA, one of the reference cells for DRB1*16:04.

This cell is FORE, another reference cell for DRB1*16:04. It was previously studied in the international workshops as IHW9317 and in the exchange as Ter 372 (2006) and Ter 330 (2003). In this present retyping, DRB1*16:04 was assigned in complete consensus by labs reporting at high resolution. DRB1*04:04 (100%) was assigned as the second DRB1 type, with 8 labs assigning DRB1*04:04:01. DQB1*03:02 and DQB1*05:02 were the assigned DQB1 types, with 7 labs assigning DQB1*03:02:01 and DQB1*05:02:01. The assigned class I types were A*02:01, A*24:02, B*15:01, B*51:01, C*03:03, and C*14:02, each assigned in complete consensus, with A*02:01:01:01, A*24:02:01:01, B*15:01:01:01, and B*51:01:01:01 assigned by NGS.

Table 3a: Individual laboratory results for B-cell #537-Class II

		Low resolution													
Center	Investigator	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles
5462	Arnold , Paula	*10	*16	5*02	NP	*01		*05		*01		NT	NT	RT-PCR	
774	Cecka , J. Michael	*10	*16	5*02		*01	*01	*05	*05	*01		*02(DP201)	*04(DP401)	SSP SSO	
9916	Charlton , Ronald K	*10	*16	5*PRESENT				*05						SSP	
3632	Colombe , Beth W.	*10	*16	5*02		*01	*01	*05	*05	*01		*02	*04	SSP SSO	
5130	Costeas , Paul A.	*10	*16	5*02		*01	*01					*02	*04	SSP SSO	
779	Daniel , Claude	*10	*16	5*02	5*02	*01	*01	*05	*05	*01	*01	*02(DP201)	*04(DP401)	SSP SSO	
5219	Daniel , Dolly	*10	*16			*01	*01	*05	*05					SSO	
87	Di Paola , Nicholas	*10	*16	5*02		*01	*01	*05	*05	*01	*01	*02(DP201)	*04(DP401)	RT-PCR	
5214	Eckels/CPMC ,	*10	*16	5*02		*01	*01	*05	*05	*01	*01			SSO	
747	Ferrari-Lacruz , Syl	*10	*16	5*02		*01	*01	*05	*05	*01		*02	*04	SSP SSO NGS	
4079	Fort , Marylise	*10	*16					*05						SSP	
792	Gandhi , Manish	*10	*16	5*02		*01	*01	*05	*05	*01	*01	*02	*04	SSO SBT	
8043	Gideoni , Osnat	*10	*16			*01	*01	*05	*05					SSP SSO	
810	Hamdi , Nuha	*10	*16	5*02	5*02	*01	*01	*05	*05					SSO	
8087	Hernandez Rosales	16	*16			*01	*01	*05	*05					SSO	
771	Israel , Shoshana	*10	*16						*05					SSP SSO	
794	Jaatinen , Taina	*10	*16	5*02		*01		*05		*01		*02	*04	SSP SSO SBT	
5488	Khuu , Hanh			5*02										RT-PCR	
725	Lardy , N.M.	*10	*16	5*PRESENT		*01		*05						SSP SSO SBT	
278	Lee , Jar-How	*10	*16	5*02	NT	*01	*01	*05	*05	*01	*01	*02	*04	SSP SSO	
6649	Lim , Young Ae	*10	*16	5*PRESENT										SSP	
2400	Liu , Chang	*10	*16	5*02	NP	*01	*01	*05	*05			*02	*04	SSP SSO SBT	
731	Loewenthal , Ron	*10	*16			*01		*05						NGS	
206	McAlack , Robert	*10	*16	5*02		*01	*01	*05	*05	*01	*01	*02	*04	SSO SBT	
735	Moussa , Omar													SSO	
3966	Permpikul , Vejbae													SSP SSO SBT	
8001	Rao , Prakash	*10	*16	5*PRESENT		*01		*05	*05					SSP	
3519	Renac , Virginie	*10	*16					*05				*02(DP201)	*04(DP401)	SSP NGS	
793	Rubocki , Ronald	*10	*16	5*PRESENT		*01	*01	*05				*02(DP201)	*04(DP401)	SSP	
4251	Schiller , Jennifer	*10	*16	5*02		*01	*01	*05	*05	*01	*01	*02(DP201)	*04(DP401)	SSO NGS	
8068	Shanmugam , Hem	*10	*16	5*02	5*02			*05	*05					SSO	
8029	Tarigopula , Anil	*10	*16			*01	*01	*05	*05					SSO	
5451	Tilanus , Marcel G.	*10	*16	5*02		*01		*05						SSP SSO SBT	
5642	Varnavidou-Nicolaï	*10	*16	5*PRESENT				*05						SSP	
2847	Wakita , Atsushi	*10	*16											SSO	

Table 3b: Individual laboratory results for B-cell #537-Class II

High resolution														
Center	Investigator	DRB1		DRB3/4/5	DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles
5133	Askar , Medhat	*10:01:01	*16:01:01	5*02:02	*01:02:02	*01:05:01	*05:01:01	*05:02:01	*01:03:01		*02:01:02	*04:01:01	NGS	
4492	Caillat-Zucman , Sc	*10:01:01	*16:01:01	5*02:02	*01:02:02	*01:05:01	*05:01:01	*05:02:01	*01:03	*01:03	*02:01:02	*04:01:01	SSP SSO NGS	DPA1*01:13
774	Cecka , J. Michael	*10:01	*16:01	5*02:02	*01:02	*01:05	*05:01	*05:02	*01:03		*02:01	*04:01	SSP SSO	DQB1*05:54 DQB1*05:48 DRB5*02:06 DQB1*05:55 DQB1*05:61 DQB1*05:68 DQB1*05:74 DQB1*05:76 DQB1*05:65 DQB1*05:53 DQB1*05:59
8070	Chang , Uckjin	*10:01	*16:01										SBT	
3224	Chen , Dong-Feng	*10:01	*16:01	5*02:02:01G	NT	NT	*05:01	*05:02	NT	NT	NT	NT	SSP SSO SBT	
8021	Clark , Brendan	*10:01	*16:01	5*02:02	*01:02	*01:05	*05:01	*05:02	*01:03		*02:01	*04:01	SSO NGS	
3632	Colombe , Beth W.	*10:01	*16:01	5*02:02	*01:02	*01:05	*05:01	*05:02	*01:03		*02:01	*04:01	SSP SSO	
5130	Costeas , Paul A.	*10:01	*16:01	5*02:02	*01:02	*01:05					*02:01	*04:01	SSP SSO	DRB1*10:03
779	Daniel , Claude				*01:02	*01:05	*05:01	*05:02	*01:03	*01:03	*02:01	*04:01	SSP SSO	
8086	Du , Keming	*10:01	*16:01		*01:02	*01:05	*05:01	*05:02	*01:03	*01:03	*02:01	*04:01	SSO SBT	
5214	Eckels/CPMC ,								*01:03		*02:01	*04:01:01G		SSO
3135	Enczmann , J	*10:01	*16:01	5*02:02			*05:01	*05:02			*02:01	*04:01		
747	Ferrari-Lacraz , Syl	*10:01:01	*16:01:01	5*02:02			*05:01:01:01	*05:02:01	*01:03	*01:03	*02:01:02	*04:01:01:02	SSP SSO NGS	DPA1*01:13
762	Fischer , Gottfried	*10:01:01	*16:01:01	5*02:02	*01:02:02	*01:05:01	*05:01:01	*05:02:01	*01:03:01:01	*01:03:01:02	*02:01:02	*04:01:01:02	SSO NGS	
4079	Fort , Marylise										*02:01	*04:01	SSP	
792	Gandhi , Manish	*10:01	*16:01				*05:01	*05:02			*02:01	*04:01	SSO SBT	
8043	Gideoni , Osnat	*10:01	*16:01		*01:02	*01:05	*05:01	*05:02					SSP SSO	
810	Hamdi , Nuha							*05:02:01					SSO	
2344	Hurley & Hartzman	*10:01:01	*16:01:01		*01:02:02	*01:05:01	*05:01:01:01	*05:02:01	*01:03:01:01	*01:03:01:02	*02:01:02	*04:01:01:01	SSO NGS	DQB1*05:01:01:02 DQB1*05:01:01:03
771	Israel , Shoshana	*10:01	*16:01				*05:01	*05:02					SSP SSO	DPB1*04:01:01:02
794	Jaatinen , Taina	*10:01	*16:01	5*02:02		*01:05	*05:01	*05:02	*01:03		*02:01	*04:01	SSP SSO SBT RT-PCR	DRB5*02:06 DQA1*01:11 DQA1*01:08 DQA1*01:09 DQA1*01:01 DQA1*01:04 DPA1*01:13 DPB1*459:01 DQA1*01:12 DPB1*464:01 DQB1*05:83

Table 3b: Individual laboratory results for B-cell #537-Class II

		High resolution												
Center	Investigator	DRB1		DRB3/4/5	DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles
5488	Khuu , Hanh	*10:01:01	*16:01:01		*01:02	*01:05	*05:01:01	*05:02:01			*02:01:02	*04:01:01	SSP SSO SBT	DQB1*05:02:04 DQB1*05:01:03 DQB1*05:01:12 DQB1*05:02:10
4337	Kim , Tai-Gyu	*10:01	*16:01				*05:01	*05:02			*02:01	*04:01	SSP SBT	
278	Lee , Jar-How	*10:01	*16:01	5*02:02	*01:02	*01:05	*05:01	*05:02	*01:03	*01:03	*02:01	*04:01		
2400	Liu , Chang	*10:01	*16:01		*01:02	*01:05	*05:01	*05:02			*02:01	*04:01:01G	SSP SSO SBT NGS	
731	Loewenthal , Ron	*10:01:01	*16:01:01				*05:01	*05:02					SSO SBT	
735	Moussa , Omar	*10:01	*16:01	5*02:02P	*01:02P	*01:01P	*05:01	*05:02	*01:03	*01:03	*02:01	*04:01	SSP SSO SBT	DPA1*01:13
8042	Muncher, Liora		*16:01	5*02:02			*05:01	*05:02						
3966	Permpikul , Vejbaes	*10:01	*16:01	5*02:02			*05:01	*05:02					SSP	
8001	Rao , Prakash	*10:01	*16:01	5*02:02:01G			*05:01	*05:02			*02:01	*04:01		
3753	Reed , Elaine F.	*10:01	*16:01	5*02:02:01G	*01:02:01G	*01:01:01G	*05:01	*05:02	*01:03	*01:03	*02:01	*04:01	SSO SBT	DRB1*16:30 DQB1*05:79 DPA1*01:13 DRB1*10:14
3519	Renac , Virginie	*10:01	*16:01	5*02:02	*01:02	*01:05	*05:01	*05:02			*02:01	*04:01	SSP NGS	
793	Rubocki , Ronald				*01:02	*01:05					*02:01	*04:01	SSP	
4251	Schiller , Jennifer	*10:01	*16:01	5*02:02	*01:02	*01:05	*05:01	*05:02	*01:03	*01:03	*02:01	*04:01	SSO NGS	
230	Thoni , Deborah	*10:01	*16:01				*05:01	*05:02			*02:01	*04:01		
5451	Tilanus , Marcel G.	*10:01:01	*16:01:01										SSP SSO SBT	
5642	Varnavidou-Nicolaï	*10:01	*16:01				*05:01	*05:02					SSP	
3511	Zeevi , Adriana	*10:01	*16:01	5*02:02	*01:02	*01:05	*05:01	*05:02			*02:01	*04:01	SSP SSO	

Table 4: Individual laboratory results for B-cell #537-Class II

Serology							
CTR	DIRNAME	DRB1		DRB3/4/5		DQB1	
910	Hahn,Amy B.	DR10	DR15	DR51		DQ1	

Table 5: Individual laboratory results for B-cell #537-Class I

Center	Investigator	Low resolution						High resolution						METHOD	Other Alleles
		HLA-A		HLA-B		HLA-C		HLA-A		HLA-B		HLA-C			
5462	Arnold , Paula	*24	*29	*07	*27	*02	*15							RT-PCR	
5133	Askar , Medhat							*24:02:01	*29:01:01:01	*07:05:01	*27:02:01	*02:02:02:01	*15:05:02	NGS	
4492	Caillat-Zucman , Sc							*24:02:01:01	*29:01:01:01	*07:05:01	*27:02:01	*02:02:02:01	*15:05:02	SSP SSO	
774	Cecka , J. Michael	*24	*29	*07	*27	*02	*15							NGS	
8070	Chang , Uckjin													SSP SSO	
9916	Charlton , Ronald K	*24	*29	*07	*27	*02	*15							SBT	
3224	Chen , Dong-Feng							*24:02:01	*29:01	*07:05:01G	*27:02	*02:02	*15:05:01G	SSP	
8021	Clark , Brendan							*24:02	*29:01	*07:05	*27:02	*02:02	*15:05	SSP SSO	
3632	Colombe , Beth W.													SSO NGS	
5130	Costeas , Paul A.	*24	*29	*07	*27	*02	*15	*24:02	*29:01	*07:05	*27:02	*02:02	*15:05	SSP SSO	
779	Daniel , Claude	*24	*29	*07	*27	*02	*15							SSP SSO	
5219	Daniel , Dolly	*24	*29	*07	*27	*02	*15							SSO	
87	Di Paola , Nicholas	*24	*29	*07	*27	*02	*15							RT-PCR	
8086	Du , Keming							*24:02	*29:01	*07:05	*27:02	*02:02	*15:05	SSO SBT	
5214	Eckels/CPMC ,	*24	*29	*07	*27	*02	*15							SSO	
3135	Enczmann , J							*24:02	*29:01	*07:05	*27:02	*02:02	*15:05		
747	Ferrari-Lacraz , Syl	*24	*29	*07	*27	*02	*15	*24:02:01:01	*29:01:01	*07:05:01	*27:02:01	*02:02:02:01	*15:05:02	SSP SSO	
762	Fischer , Gottfried													NGS	
4079	Fort , Marylise													SSO NGS	
792	Gandhi , Manish	*24	*29	*07	*27	*02	*15	*24:02	*29:01	*07:05	*27:02	*02:02	*15:05	SSP	
8043	Gideoni , Osnat													SSO SBT	
810	Hamdi , Nuha	*24	*29	*07	*27	*02	*15							SSP SSO	
8087	Hernandez Rosales	*24	*29	*07	*27	*02	*15							SSO	
2344	Hurley & Hartzman							*24:02:01:01	*29:01:01:01	*07:05:01	*27:02:01	*02:02:02:01	*15:05:02	SSO	
771	Israel , Shoshana													SSO NGS	
794	Jaatinen , Taina	*24	*29	*07	*27	*02	*15	*24:02	*29:01	*07:05	*27:02	*02:02	*15:05	SSP SSO	
5488	Khuu , Hanh							*24:02:01	*29:01:01:01	*07:05:01	*27:02:01	*02:02:02	*15:05	SBT RT-PCR	B*07:06 C*15:29
4337	Kim , Tai-Gyu							*24:02	*29:01	*07:05	*27:02	*02:02	*15:05	SSP SSO	A*24:53 A*29:49
725	Lardy , N.M.													SBT	C*15:09 C*02:43
*278	Lee , Jar-How	*24	*29	*07	*27	*02	*15	*24:02	*29:01	*07:05	*27:02	*02:02	*15:05	SSP SBT	
6649	Lim , Young Ae													SSP SSO	
2400	Liu , Chang	*24	*29	*07	*27	*02	*15	*24:02	*29:01:01G	*07:05	*27:02	*02:02	*15:05	SSP	
731	Loewenthal , Ron													SSO SBT	
206	McAlack , Robert	*24	*29	*07	*27	*02	*15							SSO	
735	Moussa , Omar							*24:02	*29:01	*07:05P	*27:02	*02:02	*15:05P	SSP SSO	
8042	Muncher , Liora							*24:02	*29:01	*07:05	*27:02	*02:02	*15:05	SBT	

Table 5: Individual laboratory results for B-cell #537-Class I

Center	Investigator	Low resolution						High resolution						METHOD	Other Alleles
		HLA-A		HLA-B		HLA-C		HLA-A		HLA-B		HLA-C			
3966	Permpikul , Vejbae	*24	*29	*07	*27	*02	*15							SSP	
8001	Rao , Prakash														
3753	Reed , Elaine F.							*24:02	*29:01	*07:05:01G	*27:02	*02:02	*15:05	SSO SBT	A*24:07 C*02:43 C*15:09 C*15:29 A*24:53 A*24:82 A*29:20 A*29:49 A*29:56 C*02:111 A*24:13 A*29:77 C*15:111
3519	Renac , Virginie	*24	*29	*07	*27	*02	*15	*24:02	*29:01	*07:05	*27:02	*02:02	*15:05	SSP NGS	
793	Rubocki , Ronald	*24	*29	*07	*27	*02	*15							SSP	
4251	Schiller , Jennifer	*24	*29	*07	*27	*02	*15	*24:02	*29:01	*07:05	*27:02	*02:02	*15:05	SSO NGS	
8068	Shanmugam , Hem	*24	*29	*07	*27	*02	*15							SSO	
8029	Tarigopula , Anil	*24	*29	*07	*27	*02	*15							SSO	
230	Thoni , Deborah							*24:02	*29:01	*07:05	*27:02	*02:02	*15:05		
5451	Tilanus , Marcel G.													SSP SSO SBT	
5642	Varnavidou-Nicolaïd													SSP	
2847	Wakita , Atsushi	*24	*29	*07	*27	*02	*15							SSO	
3511	Zeevi , Adriana							*24:02	*29:01	*07:05	*27:02	*02:02	*15:05	SSP SSO	

Table 6a: Individual laboratory results for B-cell #538-Class II

Center	Investigator	Low resolution												METHOD	Other Alleles
		DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1			
5462	Arnold , Paula	*04	*16	4*01	5*02	*01	*03	*03	*05	*01		NT	NT	RT-PCR	
774	Cecka , J. Michael	*04	*16	4*01	5*02	*01	*03	*03	*05	*01		*03	*06	SSP SSO	
9916	Charlton , Ronald K	*04	*16	4*PRESENT	5*PRESENT			*03	*05					SSP	
3632	Colombe , Beth W.	*04	*16	4*01	5*02	*01	*03	*03	*05	*01		*03	*06	SSP SSO	
5130	Costeas , Paul A.	*04	*16	4*01	5*02	*01	*03	*03	*05			*03	*06	SSP SSO	
779	Daniel , Claude	*04	*16	4*01	5*02	*01	*03	*03	*05	*01	*01	*03	*06	SSP SSO	
5219	Daniel , Dolly	*04	*16			*01	*03	*03	*05					SSO	
87	Di Paola , Nicholas	*04	*16	4*01	5*02	*01	*03	*03	*05	*01	*01	*03	*06	RT-PCR	DPB1*124
5214	Eckels/CPMC ,	*04	*16	4*01	5*02	*01	*03	*03 (DQ8)	*05	*01		*03		SSO	
747	Ferrari-Lacraz , Syl	*04	*16		5*02	*01	*03	*03	*05	*01		*03	*06	SSP SSO NGS	
4079	Fort , Marylise	*04	*16					*03	*05					SSP	
792	Gandhi , Manish	*04	*16	4*01	5*02	*01	*03	*03	*05	*01	*01	*03	*06	SSO SBT	
8043	Gideoni , Osnat	*04	*16			*01	*03	*03	*05					SSP SSO	
810	Hamdi , Nuha	*04		4*01	5*02	*01	*03	*03	*05					SSO	
8087	Hernandez Rosales	*04	*16			*01	*03	*03	*05					SSO	
771	Israel , Shoshana	*04	*16					*03	*05					SSP SSO	
794	Jaatinen , Taina	*04	*16	4*01	5*02	*01	*03	*03	*05	*01		*03	*06	SSP SSO SBT RT-PCR	
5488	Khuu , Hanh			4*01	5*02									SSP SSO SBT	
725	Lardy , N.M.	*04	*16	4*PRESENT	5*PRESENT	*01	*03	*03	*05					SSP SSO	
278	Lee , Jar-How	*04	*16	4*01	5*02	*01	*03	*03	*05	*01	*01	*03	*06		
6649	Lim , Young Ae	*04	*16	4*PRESENT	5*PRESENT									SSP	
2400	Liu , Chang	*04	*16	4*01	5*02	*01	*03	*03	*05			*03	*06	SSP SSO SBT NGS	
731	Loewenthal , Ron	*04	*16			*01	*03	*03	*05					SSO SBT	
206	McAlack , Robert	*04	*16	4*01	5*02	*01	*03	*03	*05	*01	*01	*03	*06	SSO	
735	Moussa , Omar													SSP SSO SBT	
3966	Permpikul , Vejbaes													SSP	
8001	Rao , Prakash	*04	*16	4*PRESENT	5*PRESENT	*01	*03	*03	*05						
3519	Renac , Virginie	*04	*16					*03	*05			*03	*06	SSP NGS	
793	Rubocki , Ronald	*04	*16	4*PRESENT	5*PRESENT	*01	*03	*03	*05					SSP	
4251	Schiller , Jennifer	*04	*16	4*01	5*02	*01	*03	*03	*05	*01	*01	*03	*06	SSO NGS	
8068	Shanmugam , Hem	*04	*16	4*01	5*02			*03	*05					SSO	
8029	Tarigopula , Anil	*04	*16			*01	*03	*03	*05					SSO	
5451	Tilanus , Marcel G..	*04	*16	4*01	5*02	*01	*03	*03	*05					SSP SSO SBT	
5642	Varnavidou-Nicolaic	*04	*16	4*PRESENT	5*PRESENT			*03	*05					SSP	
2847	Wakita , Atsushi	*04	*16											SSO	

Table 6b: Individual laboratory results for B-cell #538-Class II

		High resolution													
Center	Investigator	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles
5133	Askar , Medhat	*04:04:01	*16:04	4*01:03:01	5*02:02	*01:02:02	*03:01:01	*03:02:01	*05:02:01	*01:03:01		*03:01:01	*06:01	NGS	
4492	Caillat-Zucman , Sc	*04:04:01	*16:04	4*01:03	5*02:02	*01:02:02	*03:01:01	*03:02:01	*05:02:01	*01:03	*01:03	*03:01:01	*06:01	SSP SSO NGS	DPA1*01:13
774	Cecka , J. Michael	*04:04	*16:04	4*01:03	5*02:02	*01:02	*03:01	*03:02	*05:02	*01:03		*03:01	*06:01	SSP SSO	DRB4*01:09 DRB4*01:10 DRB*02:06
8070	Chang , Uckjin	*04:04	*16:04											SBT	
3224	Chen , Dong-Feng	*04:04	*16:04	4*01:01:01G	5*02:02:01G	NT	NT	*03:02	*05:02	NT	NT	NT	NT	SSP SSO SBT	
8021	Clark , Brendan	*04:04	*16:04	4*01:03	5*02:02	*01:02	*03:01	*03:02	*05:02	*01:03		*03:01	*06:01	SSO NGS	
3632	Colombe , Beth W.	*04:04	*16:04	4*01:03	5*02:02	*01:02	*03:01	*03:02	*05:02	*01:03		*03:01	*06:01	SSP SSO	
5130	Costeas , Paul A.	*04:04	*16:04	4*01:03	5*02:02	*01:02	*03:01	*03:02	*05:02			*03:01	*06:01	SSP SSO	
779	Daniel , Claude	*04:04	*16:04		5*02:02	*01:02	*03:01	*03:02	*05:02	*01:03	*01:03	*03:01	*06:01	SSP SSO	
8086	Du , Keming	*04:04	*16:04			*01:02	*03:01	*03:02	*05:02	*01:03	*01:03	*03:01	*06:01	SSO SBT	
5214	Eckels/CPMC									*01:03		*03:01:01G	*20:01		
3135	Enczmann , J	*04:04	*16:04	4*01:03	5*02:02			*03:02	*05:02			*03:01	*06:01		
747	Ferrari-Lacruz , Syl	*04:04:01	*16:04	4*01:03:01	5*02:02			*03:02:01	*05:02:01	*01:03	*01:03	*03:01:01	*06:01	SSP SSO NGS	DPA1*01:13
762	Fischer , Gottfried	*04:04:01	*16:04	4*01:03:01	5*02:02	*01:02:02	*03:01:01	*03:02:01	*05:02:01	*01:03:01:03		*03:01:01	*06:01	SSO NGS	
4079	Fort , Marylise											*03:01	*06:01	SSP	DPB1*20:01
792	Gandhi , Manish	*04:04	*16:04					*03:02	*05:02			*03:01	*06:01	SSO SBT	
8043	Gideoni , Osnat													SSP SSO	
810	Hamdi , Nuha		*16:04											SSO	
2344	Hurley & Hartzman	*04:04:01	*16:04			*01:02:02	*03:01:01	*03:02:01	*05:02:01	*01:03:01:03	*01:03:01:03	*03:01:01	*06:01	SSO NGS	
771	Israel , Shoshana	*04:04	*16:04					*03:02	*05:02					SSP SSO	
794	Jaatinen , Taina	*04:04	*16:04	4*01:03	5*02:02	*01:02	*03:01	*03:02	*05:02	*01:03		*03:01	*06:01	SSP SSO SBT RT-PCR	DRB4*01:09 DQA1*03:02 DQA1*03:03 DPA1*01:13 DPB1*104:01 DQA1*01:09 DRB5*02:06 DQA1*01:08 DQA1*01:11
5488	Khuu , Hanh	*04:04:01	*16:04			*01:02	*03:01	*03:02:01	*05:02:01			*03:01:01	*06:01	SSP SSO SBT	DQB1*03:02:11 DQB1*05:02:02 DPB1*29:01 DPB1*20:01:01
4337	Kim , Tai-Gyu	*04:04	*16:04					*03:02	*05:02			*03:01	*06:01	SSP SBT	
278	Lee , Jar-How	*04:04	*16:04	4*01:03	5*02:02	*01:02	*03:01	*03:02	*05:02	*01:03	*01:03	*03:01	*06:01		
2400	Liu , Chang	*04:04	*16:04			*01:02	*03:01	*03:02	*05:02			*03:01:01G	*06:01	SSP SSO SBT	
731	Loewenthal , Ron	*04:04:01	*16:04					*03:02:01	*05:02:01					NGS	
														SSO SBT	

Table 6b: Individual laboratory results for B-cell #538-Class II

		High resolution													
Center	Investigator	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles
735	Moussa , Omar	*04:04	*16:04	4*01:01	5*02:02	*01:02P	*03:01P	*03:02	*05:02	*01:03	*01:03	*03:01	*06:01	SSP SSO SBT	DRB4*01:03 DRB4*01:09 DRB4*01:10 DRB4*01:06 DRB4*01:07 DRB5*02:06 DPA1*01:13
8042	Muncher, Liora	*04:04	*16:04	4*01:03	5*02:02			*03:02	*05:02						
3966	Permpikul , Vejbaes	*04:04	*16:04	4*01:03	5*02:02			*03:02	*05:02					SSP	
8001	Rao , Prakash	*04:04		4*01:03	5*02:02:01G			*03:02	*05:02			*03:01:01G	*06:01		
3753	Reed , Elaine F.	*04:04	*16:04	4*01:01	5*02:02:01G	*01:02:01G	*03:01:01G	*03:02	*05:02	*01:03	*01:03	*03:01	*06:01	SSO SBT	DPA1*01:13 DRB4*01:03 DRB4*01:06 DRB4*01:09 DRB4*01:10 DQB1*05:79 DPB1*20:01 DPB1*29:01 DQB1*03:161 DQB1*05:100 DQB1*05:125 DQB1*03:11
3519	Renac , Virginie	*04:04	*16:04	4*01:03	5*02:02	*01:02	*03:01	*03:02	*05:02			*03:01	*06:01	SSP NGS	
793	Rubocki , Ronald					*01:02	*03:01					*03:01:01G	*06:01	SSP	
4251	Schiller , Jennifer	*04:04	*16:04	4*01:03	5*02:02	*01:02	*03:01	*03:02	*05:02	*01:03	*01:03	*03:01	*06:01	SSO NGS	
230	Thoni , Deborah	*04:04	*16:04					*03:02	*05:02			*03:01	*20:01		
5451	Tilanus , Marcel G.	*04:04:01	*16:04											SSP SSO SBT	
5642	Varnavidou-Nicolaïd	*04:04	*16:04					*03:02	*05:02					SSP	
3511	Zeevi , Adriana	*04:04	*16:04	4*01:03	5*02:02	*01:02	*03:01	*03:02	*05:02			*03:01	*06:01	SSP SSO	

Table 7: Individual laboratory results for B-cell #538-Class II

		Serology									
CTR	DIRNAME	DRB1		DRB3/4/5		DQB1		Others			
910	Hahn,Amy B.	DR4	DR15	DR53	DR51			DQ3	DQ1	DR7, DR9	

Table 8: Individual laboratory results for B-cell #538-Class I

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	*24	*15	*51	*03	*14							RT-PCR	
5133	Askar , Medhat							*02:01:01:01	*24:02:01	*15:01:01:01	*51:01:01:01	*03:03:01	*14:02:01	NGS	
4492	Caillat-Zucman , Sc							*02:01:01:01	*24:02:01:01	*15:01:01:01	*51:01:01	*03:03:01	*14:02:01	SSP SSO NGS	
774	Cecka , J. Michael	*02	*24	*15	*51	*03	*14							SSP SSO	
8070	Chang , Uckjin													SBT	
9916	Charlton , Ronald K	*02	*24	*15	*51	*03	*14							SSP	
3224	Chen , Dong-Feng							*02:01	*24:02:01	*15:01	*51:01:01G	*03:03	*14:02	SSP SSO SBT	
8021	Clark , Brendan							*02:01	*24:02	*15:01	*51:01	*03:03	*14:02	SSO NGS	
3632	Colombe , Beth W.													SSP SSO	
5130	Costeas , Paul A.	*02	*24	*15	*51	*03	*14	*02:01	*24:02	*15:01	*51:01	*03:03	*14:02	SSP SSO	
779	Daniel , Claude	*02	*24	*15	*51	*03	*14			*15:01		*03:03		SSP SSO	
5219	Daniel , Dolly	*02	*24	*15	*51	*03	*14							SSO	
87	Di Paola , Nicholas	*02	*24	*15	*51	*03	*14							RT-PCR	
5214	Eckels/CPMC ,	*02	*24	*15 (B62)	*51	*03 (Cw9)	*14								
8086	Du , Keming							*02:01	*24:02	*15:01	*51:01	*03:03	*14:02	SSO SBT	
3135	Enczmann , J							*02:01	*24:02	*15:01	*51:01	*03:03	*14:02		
747	Ferrari-Lacraz , Syl	*02	*24	*15	*51	*03	*14	*02:01:01:01	*24:02:01:01	*15:01:01:01	*51:01:01	*03:03:01	*14:02:01	SSP SSO NGS	
762	Fischer , Gottfried													SSO NGS	
4079	Fort , Marylise													SSP	
792	Gandhi , Manish	*02	*24	*15	*51	*03	*14	*02:01	*24:02	*15:01	*51:01	*03:03	*14:02	SSO SBT	
8043	Gideoni , Osnat													SSP SSO	
810	Hamdi , Nuha	*02	*24	*15	*51	*03	*14							SSO	
8087	Hernandez Rosales	*02	*24	*15	*51	*03	*14							SSO	
2344	Hurley & Hartzman ,							*02:01:01:01	*24:02:01:01	*15:01:01:01	*51:01:01	*03:03:01	*14:02:01	SSO NGS	
771	Israel , Shoshana													SSP SSO	
794	Jaatinen , Taina	*02	*24	*15	*51	*03	*14	*02:01	*24:02	*15:01	*51:01	*03:03	*14:02	SSP SSO SBT RT-PCR	C*03:227
5488	Khuu , Hanh							*02:01:01	*24:02:01	*15:01:01:01	*51:01:01:01	*03:03:01	*14:02:01	SSP SSO SBT	A*02:01:36 A*02:01:09 B*15:01:02 B*15:01:20 B*15:39:02 B*51:06:01 B*51:37 B*51:61:01 C*03:227 C*03:49 C*14:55 A*24:02:06 B*15:38:01 B*51:61:02 B*51:01:35 C*03:20N C*03:43:01 C*14:46 C*14:06 B*15:04:01 B*15:30 B*15:39:01 B*15:38:02 B*51:02:01 B*51:01:04 B*51:02:05 C*14:20 C*03:04:01 C*03:55
4337	Kim , Tai-Gyu							*02:01	*24:02	*15:01	*51:01	*03:03	*14:02	SSP SBT	A*24:02:02
725	Lardy , N.M.													SSP SSO	

Table 8: Individual laboratory results for B-cell #538-Class I

Center	Investigator	Low resolution						High resolution						METHOD	Other Alleles
		HLA-A		HLA-B		HLA-C		HLA-A		HLA-B		HLA-C			
278	Lee , Jar-How	*02	*24	*15	*51	*03	*14	*02:01	*24:02	*15:01	*51:01	*03:03	*14:02		
6649	Lim , Young Ae													SSP	
2400	Liu , Chang	*02	*24	*15	*51	*03	*14	*02:01	*24:02	*15:01	*51:01	*03:03	*14:02	SSP SSO SBT	
731	Loewenthal , Ron													NGS	
206	McAlack , Robert	*02	*24	*15	*51	*03	*14							SSO SBT	
735	Moussa , Omar							*02:01P	*24:02	*15:01	*51:01P	*03:03P	*14:02	SSO	
8042	Muncher, Liora							*02:01	*24:02	*15:01	*51:01	*03:03	*14:02	SSP SSO SBT	
3966	Permpikul , Vejbaes	*02	*24		*51	*03	*14			*15:01				SSP	
8001	Rao , Prakash														
															A*02:70 A*02:86 A*02:87 A*02:110 A*02:90 A*02:118 A*02:226N A*24:29 A*24:30 A*24:52 A*24:53 A*24:94 A*24:104 A*24:207 A*24:218 B*15:30 B*15:38 B*15:39 B*15:202 B*15:239 B*51:06 B*51:07 C*03:20N C*03:43 C*03:46 C*03:49 C*03:55 C*03:227 A*02:58 B*15:56 A*02:04 A*02:12 A*02:17 A*02:36 A*02:37 A*02:46 B*51:37 B*51:61 B*51:63 B*51:104 B*51:147 B*51:185 B*51:193 C*03:04 C*14:05 C*14:06 C*14:20 C*14:46 C*03:341 C*14:55 A*24:324 C*03:276 A*02:417 A*02:629 A*24:03 A*24:14 A*24:28 A*24:93 B*15:04 B*15:63 B*15:135 A*02:76 A*02:628 A*24:13 A*24:293 A*24:310
3753	Reed , Elaine F.							*02:01	*24:02	*15:01	*51:01	*03:03	*14:02	SSO SBT	
3519	Renac , Virginie	*02	*24	*15	*51	*03	*14	*02:01	*24:02	*15:01	*51:01	*03:03	*14:02	SSP NGS	
793	Rubocki , Ronald	*02	*24	*15	*51	*03	*14							SSP	
4251	Schiller , Jennifer	*02	*24	*15	*51	*03	*14	*02:01	*24:02	*15:01	*51:01	*03:03	*14:02	SSO NGS	
8068	Shanmugam , Hem	*02	*24	*15	*51	*03	*14							SSO	
8029	Tarigopula , Anil	*02	*24	*15	*51	*03	*14							SSO	
230	Thoni , Deborah							*02:01	*24:02	*15:01	*51:01	*03:03	*14:02		
5451	Tilanus , Marcel G.													SSP SSO SBT	
5642	Varnavidou-Nicolaïd													SSP	
2847	Wakita , Atsushi	*02	*24	*15	*51	*03	*14							SSO	
3511	Zeevi , Adriana							*02:01	*24:02	*15:01	*51:01	*03:03	*14:02	SSP SSO	

CELL EXCHANGE #398

The results for Cell Exchange #398 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. Four different subtypes of B*15 were studied in this Exchange.

Cell 1589. The reported type for this sample from a Chinese donor is A*02:01(A2)-A*30(A30)-B*13:02(B13)-B*15:02(B75)-C*06:02(Cw6)-C*08:01(Cw8). Likely associations in this cell are B*13:02-C*06:02 and B*15:02-C*08:01, observed commonly in Asians, with respective frequencies of HF=0.02274 and 0.03496. Arnold, Askar, Fischer, Latham, Loewenthal, and Rees detected the presence of a new A*30 allele in this cell. The A*30 variant has a substitution in exon 3 at position 488 (GCG → GTG), which results in an amino acid change from alanine to valine. Interestingly by serology, A30 was assigned by only 59%. Hogan noted “there were no A30 positive reactions but A*30 was detected by SSP. A30null or very short reaction pattern for A30 is possible.” A*02:01 (100%) was reported as the second A-locus type, with 5 labs assigning A*02:01:01:01. B*13:02 (B*13:02:01) (100%) and B*15:02 (B*15:02:01) (100%) were the B-locus types. B13 (100%) and B15 (82%) were assigned by serology, with B75 (65%) assigned as the B15 split. B62 was misassigned by 3 labs.

Cell 1590. The reported type for this sample from an Asian donor of Vietnamese descent is A*33:03(A33)-B*15:13(B77)-B*44:03(B44)-C*07:01:01G(Cw7)-C*08:01(Cw8). The likely associations present in this cell are B*44:03-C*07:01:01G and B*15:13-C*08:01, with respective frequencies of 0.02558 and 0.00171 in Asians. A*33:03 was reported as the sole A-locus type, with 5 labs assigning A*33:03:01. A33 (94%) was assigned by serology. The B-locus types in this cell were reported as B*15:13 (100%) and B*44:03 (100%), with B*15:13:01 and B*44:03:02 each assigned by 7 labs. B44 (94%) and B15 (77%) were reported by serology, with 53% of labs assigning B77 as the B15 split. B63 was misassigned by 2 labs.

Cell 1591. The reported type for this sample from an Asian donor of Indonesian descent is A*02:03(A2)-B*15:12(B76)-B*54:01(B54)-C*01:02(Cw1)-C*04:03(Cw4). This donor is the offspring of previous exchange cell, cell 971 and the sibling of cell 1486 (same as cell 1413 and cell 1454). From family studies, the haplotypes in this cell are determined to be A*02:03-B*15:12-C*04:03 and A*02:03-B*54:01-C*01:02. The associations in this cell, B*54:01-C*01:02 and B*15:12-C*04:03, are observed in Asians, with respective HF=0.02955 and 0.00114. This sample was previously typed as cells 1487 (2013), 1453 (2012), and 1417 (2011). In this present retyping, B*15:12 was assigned in complete consensus, an improvement from the 2013 typing, in which a number of labs (n = 8) were unable to resolve B*15:12 from B*15:19. By serology B76 (67%) was reported as the B15 split. B*54:01 was reported as the second B-locus type, with 5 labs assigning B*54:01:01. B22 (67%) was assigned by serology, with 53% of labs reporting B54 as the split of B22.

Cell 1592. The reported type for this sample from a Chinese donor is A*02:07(A2)-A*11:01(A11)-B*15:58(B62)-B*46:01(B46)-C*01:02(Cw1). One likely class I haplotype present in this cell is A*02:07-B*46:01-C*01:02, the second most common haplotype observed in Asians, with HF=0.03251. The other association present may then be A*11:01-B*15:58-C*01:02. B*15:58, typed for this first time in the exchange, was assigned by 93% of labs reporting at high resolutions. B15 (100%) was reported by serology, with 80% of labs assigning B62 as the B15 split. B*46:01 was reported as the second B-locus type, with 5 labs assigning B*46:01:01. A*02:07 (A*02:07:01) (93%), A*11:01 (A*11:01:01) (100%), and C*01:02 (C*01:02:01) (100%) were the reported A-locus and C-locus types.

Table 9. Summary of the 398th Cell Exchange (Cell #1589-1592)

DNA typing

Cell 1589	
21 low/15 high labs - A	%(n)
A*02:01:01:01	33(5)
A*02:01:01	7 (1)
A*02:01	47(7)
A*02:380	13(2)
A*02	100(21)
22 low/16 high labs - A	%(n)
A*30:01:01	5 (1)
A*30:01	44(7)
A*NEW	38(6)
A*30:109	13(2)
A*30	100(22)
21 low/16 high labs - B	%(n)
B*13:02:01	38(6)
B*13:02	62(10)
B*13	100(21)
21 low/18 high labs - B	%(n)
B*15:02:01	33(6)
B*15:02	67(12)
B*15(B75)	10(2)
B*15	90(19)
20 low/15 high Labs - C	%(n)
C*06:02:01:01	27(4)
C*06:02:01	7 (1)
C*06:02:01G	13(2)
C*06:02	53(8)
C*06	100(20)
20 low/15 high Labs - C	%(n)
C*08:01:01	33(5)
C*08:01:01G	13(2)
C*08:01	53(8)
C*08	100(20)

Cell 1590	
21 low/14 high labs - A	%(n)
A*33:03:01	36(5)
A*33:03	64(9)
A*33	100(21)
20 low/19 high labs - B	%(n)
B*15:13:01	37(7)
B*15:13	63(12)
B*15(B77)	10(2)
B*15	90(18)
21 low/15 high labs - B	%(n)
B*44:03:02	47(7)
B*44:03	53(8)
B*44	100(21)
20 low/14 high Labs - C	%(n)
C*07:01:01G	14(2)
C*07:06	64(9)
C*07:01	14(2)
C*07:18	7 (1)
C*07	100(20)
20 low/14 high Labs - C	%(n)
C*08:01:01	29(4)
C*08:01:01G	14(2)
C*08:01	57(8)
C*08	100(20)

Cell 1591	
19 low/14 high labs - A	%(n)
A*02:03:01	36(5)
A*02:03	64(9)
A*02	100(19)
19 low/15 high labs - B	%(n)
B*15:12	100(15)
B*15(B76)	11(2)
B*15	89(17)
19 low/13 high labs - B	%(n)
B*54:01:01	38(5)
B*54:01	62(8)
B*54	100(19)
18 low/12 high Labs - C	%(n)
C*01:02:01	33(4)
C*01:02:01G	17(2)
C*01:02	50(6)
C*01	100(18)
18 low/13 high Labs - C	%(n)
C*04:03:01	38(5)
C*04:03	62(8)
C*04	100(18)

Cell 1592	
19 low/14 high labs - A	%(n)
A*02:07:01	21(3)
A*02:07:01G	7 (1)
A*02:07	64(9)
A*02:58	7 (1)
A*02	100(19)
19 low/13 high labs - A	%(n)
A*11:01:01:01	23(3)
A*11:01:01	15(2)
A*11:01	62(8)
A*11	100(19)
19 low/15 high labs - B	%(n)
B*15:58	93(14)
B*15:01	7 (1)
B*15(B62)	11(2)
B*15	89(17)
19 low/13 high labs - B	%(n)
B*46:01:01	38(5)
B*46:01	62(8)
B*46	100(19)
18 low/13 high labs - C	%(n)
C*01:02:01	31(4)
C*01:02:01G	15(2)
C*01:02	54(7)
C*01	100(18)

Table 10. Summary of the 398th Cell Exchange (Cell #1589 - 1592)

Serological typing

(Chinese)	
Cell 1589	
(17 Samples Typed)	
A2	100.0%
	[100.0%]
A30	58.8%
A19	5.9%
	[58.8%]
B13	100.0%
B75	64.7%
B15	17.6%
	[82.4%]
Cw6	35.3%
	[35.3%]
Cw8	23.5%
Bw4	64.7%
Bw6	64.7%
Others Found	
B62	17.6%
A31	5.9%
B70	5.9%
B73	5.9%
Cw5	5.9%

(Asian)	
Cell 1590	
(17 Samples Typed)	
A33	94.1%
A19	5.9%
	[100.0%]
B77	52.9%
B15	29.4%
	[82.4%]
B44	94.1%
	[94.1%]
Cw7	52.9%
Cw8	29.4%
Bw4	64.7%
Others Found	
B63	11.8%
A34	11.8%
B53	5.9%
Cw5	5.9%
B62	5.9%
B37	5.9%

(Asian)	
Cell 1591	
(15 Samples Typed)	
A2	93.3%
A203	6.7%
	[100.0%]
B54	53.3%
B22	13.3%
	[66.7%]
B76	66.7%
B15	33.3%
	[100.0%]
Cw1	40.0%
Cw4	33.3%
Cw6	6.7%
	[40.0%]
Bw6	66.7%
Others Found	
B55	13.3%
B45	6.7%
Cw3	6.7%
A74	6.7%
B62	6.7%

(Chinese)	
Cell 1592	
(15 Samples Typed)	
A2	100.0%
	[100.0%]
A11	86.7%
A11.1	6.7%
	[93.3%]
B62	80.0%
B15	20.0%
	[100.0%]
B46	66.7%
Cw1	53.3%
Bw6	66.7%
Others Found	
Cw3	20.0%
B70	13.3%

Table 11. Individual laboratory results for Cell #1589

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	*30	*13	*15	*06	*08	*02:01	NEW	*13:02	*15:02	*06:02	*08:01	SSO NGS	
5133	Askar , Medhat							*02:01:01:01	NEW	*13:02:01	*15:02:01	*06:02:01:01	*08:01:01	NGS	
4492	Caillat-Zucman , Sc	*02	*30	*13	*15	*06	*08							SSP	
774	Cecka , J. Michael	*02	*30	*13	*15	*06	*08		*30:01	*13:02	*15:02			SSP SSO	A*30:36 A*30:37 B*13:38 B*13:69 B*15:214 B*15:302N
8070	Chang , Uckjin							*02:380	*30:01	*13:02	*15:02	*06:02	*08:01	SBT	
3632	Colombe , Beth W.	*02	*30	*13	*15	*06	*08	*02:01	*30:01	*13:02	*15:02	*06:02	*08:01	SSP SSO	
779	Daniel , Claude	*02	*30	*13	*15	*06	*08				*15:02			SSP SSO	
5214	Eckels/CPMC	*02	*30	*13	*15 (B75)	*06	*08							SSO	
747	Ferrari-Lacraz , Syl	*02	*30	*13	*15	*06	*08	*02:01:01:01	*30:109	*13:02:01	*15:02:01	*06:02:01:01	*08:01:01		
762	Fischer , Gottfried							*02:01:01:01	NEW	*13:02:01	*15:02:01	*06:02:01:01	*08:01:01	SBT NGS	
4079	Fort , Marylise	*02	*30	*13	*15	*06	*08	*02:01	*30:01	*13:02	*15:02	*06:02	*08:01	SSP SSO	A*02:380 A*33:105 A*33:107 C*06:42 C*08:127N
8043	Gideoni , Osnat	*02	*30	*13	*15	*06	*08	*02:01	*30:01	*13:02	*15:02	*06:02	*08:01	SSP SSO	
3545	Goldstein , Steven	*02	*30	*13	*15	*06	*08	*02:01	*30:109	*13:02	*15:02	*06:02	*08:01	SSP SSO SBT	C*06:83 C*08:102 C*08:99 C*08:22
810	Hamdi , Nuha	*02	*30	*13	*15	*06	*08							SSO	
3808	Hogan , Patrick	*02	*30	*13	*15	*06	*08				*15:02			SSP	
771	Israel , Shoshana	*02	*30	*13	*15	*06	*08							SSO	
725	Lardy , N.M.	*02	*30	*13	*15	*06	*08							SSP SSO	
745	Latham , Katy		*30					*02:01:01:01	NEW	*13:02:01	*15:02:01	*06:02:01:01	*08:01:01	SSP SBT NGS	
278	Lee , Jar-How	*02	*30	*13	*15	*06	*08	*02:01	*30:01	*13:02	*15:02	*06:02	*08:01		
6649	Lim , Young Ae	*02	*30	*13	*15									SSP	
731	Loewenthal , Ron	*02	*30	*13	*15	*06	*08	*02:01:01:01	NEW	*13:02:01	*15:02:01	*06:02:01G	*08:01:01G	SSP SSO SBT	C*06:09 C*08:11
8001	Rao , Prakash	*02	*30	*13	*15 (B75)	*06	*08								
3625	Rees , Tracey	*02	*30	*13	*15	*06	*08	*02:01	NEW	*13:02	*15:02	*06:02	*08:01	SSP SBT	C*06:83
4251	Schiller , Jennifer	*02	*30	*13	*15	*06	*08	*02:380	*30:01	*13:02	*15:02	*06:02:01G	*08:01:01G	SSO SBT	
16	Zhang , Aiwen	*02	*30	*13	*15	*06	*08	*02:01:01	*30:01:01	*13:02:01	*15:02:01	*06:02:01	*08:01:01	SSO SBT NGS	

Table 12. Individual laboratory results for Cell #1590

Center	Investigator	Low Resolution						High Resolution						Method	Other Alleles
		HLA-A		HLA-B		HLA-C		HLA-A		HLA-B		HLA-C			
5462	Arnold , Paula	*33		*15	*44	*07	*08	*33:03		*15:13	*44:03	*07:06	*08:01	SSO NGS	
5133	Askar , Medhat							*33:03:01		*15:13:01	*44:03:02	*07:06	*08:01:01	NGS	
4492	Caillat-Zucman , Sc	*33		*15	*44	*07	*08								
774	Cecka , J. Michael	*33		*15	*44	*07	*08			*15:13	*44:03			SSP SSO	B*44:199
8070	Chang , Uckjin							*33:03		*15:13	*44:03	*07:01	*08:01	SBT	
3632	Colombe , Beth W.	*33		*15	*44	*07	*08	*33:03		*15:13	*44:03	*07:06	*08:01	SSP SSO	
779	Daniel , Claude	*33	*33	*15	*44	*07	*08			*15:13				SSP SSO	
5214	Eckels/CPMC	*33		*15 (B77)	*44	*07	*08			*15:13				SSO	
747	Ferrari-Lacraz , Syl	*33	*33	*15	*44	*07	*08	*33:03	*33:03	*15:13:01	*44:03:02	*07:06	*08:01:01		
762	Fischer , Gottfried							*33:03:01		*15:13:01	*44:03:02	*07:06	*08:01:01	SBT NGS	
4079	Fort , Marylise	*33		*15	*44	*07	*08	*33:03		*15:13	*44:03	*07:06	*08:01	SSP SSO	C*08:20
8043	Gideoni , Osnat	*33		*15	*44	*07	*08							SSP SSO	
3545	Goldstein , Steven	*33		*15	*44	*07	*08	*33:03		*15:13:01	*44:03:02	*07:01	*08:01	SSP SSO SBT	C*07:06 C*07:18 C*07:343 C*07:419 C*07:458 C*08:99 C*08:22 C*08:102
810	Hamdi , Nuha	*33	*33		*44	*07	*08			*15:13				SSO	
3808	Hogan , Patrick	*33		*15	*44	*07	*08			*15:13				SSP	
771	Israel , Shoshana	*33		*15	*44	*07	*08							SSO	
725	Lardy , N.M.	*33		*15	*44	*07	*08							SSP SSO	
745	Latham , Katy							*33:03:01		*15:13:01	*44:03:02	*07:06	*08:01:01	SSP SBT NGS	
278	Lee , Jar-How	*33	*33	*15	*44	*07	*08	*33:03	*33:03	*15:13	*44:03	*07:06	*08:01		
6649	Lim , Young Ae	*33		*15	*44									SSP	
731	Loewenthal , Ron	*33		*15	*44	*07	*08	*33:03:01		*15:13:01	*44:03:02	*07:01:01G	*08:01:01G	SSP SSO SBT	
8001	Rao , Prakash	*33		*15 (B77)	*44	*07	*08								
3625	Rees , Tracey	*33	*33	*15	*44	*07	*08	*33:03	*33:03	*15:13	*44:03	*07:06	*08:01	SSP SBT	
4251	Schiller , Jennifer	*33	*33	*15	*44	*07	*08	*33:03	*33:03	*15:13	*44:03	*07:01:01G	*08:01:01G	SSO SBT	
16	Zhang , Aiwen	*33		*15	*44	*07	*08	*33:03:01		*15:13:01	*44:03:02	*07:18	*08:01	SSO SBT NGS	C*07:01 C*07:28 C*07:40 C*07:148 C*08:16:01 C*08:11 C*08:21

Table 13. Individual laboratory results for Cell #1591

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		*15	*54	*01	*04	*02:03		*15:12	*54:01	*01:02	*04:03	SSO NGS	
5133	Askar, Medhat							*02:03:01		*15:12	*54:01:01	*01:02:01	*04:03:01	NGS	
4492	Caillat-Zucman, Sc	*02	*02	*15	*54	*01	*04							SSP	
774	Cecka, J. Michael	*02		*15	*54	*01	*04	*02:03		*15:12	*54:01		*04:03	SSP SSO	A*02:345 A*02:431 A*02:466 A*02:480 A*02:505 A*02:529 A*02:267 A*02:281 A*02:315 A*02:370 A*02:412 A*02:463 B*15:19 B*15:270 B*15:298 B*15:304N B*54:17 B*54:32 C*04:107 C*04:171
8070	Chang, Uckjin							*02:03		*15:12	*54:01	*01:02	*04:03	SBT	
3632	Colombe, Beth W.	*02		*15	*54	*01	*04	*02:03		*15:12	*54:01	*01:02	*04:03	SSP SSO	
779	Daniel, Claude	*02	*02	*15	*54	*01	*04	*02:03	*02:03	*15:12				SSP SSO	
5214	Eckels/CPMC	*02		*15 (B76)	*54	*01	*04							SSO	
747	Ferrari-Lacraz, Syl														
762	Fischer, Gottfried							*02:03:01		*15:12	*54:01:01	*01:02:01	*04:03:01	SBT NGS	
4079	Fort, Marylise	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	SSP SSO	
8043	Gideoni, Osnat	*02		*15	*54	*01	*04							SSP SSO	
3545	Goldstein, Steven	*02		*15	*54	*01	*04	*02:03		*15:12	*54:01	*01:02	*04:03	SSP SSO SBT	C*01:85
810	Hamdi, Nuha	*02	*02	*15	*54	*01	*04							SSO	
3808	Hogan, Patrick	*02		*15	*54	*01	*04			*15:12				SSP	B*15:270
771	Israel, Shoshana	*02		*15	*54	*01	*04							SSO	
725	Lardy, N.M.	*02		*15	*54	*01	*04							SSP SSO	
745	Latham, Katy							*02:03:01		*15:12	*54:01:01	*01:02:01	*04:03:01	SSP SBT NGS	
278	Lee, Jar-How	*02	*02	*15	*54	*01	*04	*02:03	*02:03	*15:12	*54:01	*01:02	*04:03		
6649	Lim, Young Ae	*02		*15	*54									SSP	
731	Loewenthal, Ron	*02		*15	*54	*01	*04	*02:03:01		*15:12	*54:01:01	*01:02:01G	*04:03:01	SSP SSO SBT	
8001	Rao, Prakash	*02		*15 (B76)	*54	*01	*04								
3625	Rees, Tracey	*02	*02	*15	*54	*01	*04	*02:03	*02:03	*15:12	*54:01	*01:02	*04:03	SSP SBT	
4251	Schiller, Jennifer	*02	*02	*15	*54	*01	*04	*02:03	*02:03	*15:12	*54:01	*01:02:01G	*04:03	SSO SBT	
16	Zhang, Aiwen	*02		*15	*54	*01	*04	*02:03:01		*15:12	*54:01:01	*01:02:01	*04:03:01	SSO SBT NGS	C*01:58 C*04:107

Table 14. Individual laboratory results for Cell #1592

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	*11	*15	*46	*01		*02:07	*11:01	*15:58	*46:01	*01:02		SSO NGS	
5133	Askar , Medhat							*02:07:01	*11:01:01:01	*15:58	*46:01:01	*01:02:01		NGS	
4492	Caillat-Zucman , Sc	*02	*11	*15	*46	*01								SSP	
774	Cecka , J. Michael	*02	*11	*15	*46	*01								SSP SSO	
8070	Chang , Uckjin							*02:07	*11:01	*15:58	*46:01	*01:02		SBT	
3632	Colombe , Beth W.	*02	*11	*15	*46	*01		*02:07	*11:01	*15:58	*46:01	*01:02		SSP SSO	
779	Daniel , Claude	*02	*11	*15	*46	*01	*01	*02:58		*15:58				SSP SSO	
5214	Eckels/CPMC	*02	*11	*15 (B62)	*46	*01								SSO	
747	Ferrari-Lacraz , Syl														
762	Fischer , Gottfried							*02:07:01	*11:01:01:01	*15:58	*46:01:01	*01:02:01		SBT NGS	
4079	Fort , Marylise	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	SSP SSO	
8043	Gideoni , Osnat	*02	*11	*15	*46	*01		*02:07	*11:01	*15:58	*46:01	*01:02		SSP SSO	
3545	Goldstein , Steven	*02	*11	*15	*46	*01		*02:07	*11:01	*15:58	*46:01	*01:02		SSP SSO SBT	C*01:85
810	Hamdi , Nuha	*02	*11	*15	*46	*01	*01							SSO	
3808	Hogan , Patrick	*02	*11	*15	*46	*01				*15:58				SSP	B*15:73
771	Israel , Shoshana	*02	*11	*15	*46	*01								SSO	
725	Lardy , N.M.	*02	*11	*15	*46	*01								SSP SSO	
745	Latham , Katy							*02:07:01	*11:01:01:01	*15:58	*46:01:01	*01:02:01		SSP SBT NGS	
278	Lee , Jar-How	*02	*11	*15	*46	*01	*01	*02:07	*11:01	*15:01	*46:01	*01:02	*01:02		
6649	Lim , Young Ae	*02	*11	*15	*46									SSP	
731	Loewenthal , Ron	*02	*11	*15	*46	*01		*02:07:01G	*11:01:01	*15:58	*46:01:01	*01:02:01G		SSP SSO SBT	B*15:01:01
8001	Rao , Prakash	*02	*11	*15 (B62)	*46	*01									
3625	Rees , Tracey	*02	*11	*15	*46	*01	*01	*02:07	*11:01	*15:58	*46:01	*01:02	*01:02	SSP SBT	C*01:86N C*01:98N
4251	Schiller , Jennifer	*02	*11	*15	*46	*01	*01	*02:07	*11:01	*15:58	*46:01	*01:02:01G	*01:02:01G	SSO SBT	
16	Zhang , Aiwen	*02	*11	*15	*46	*01		*02:07	*11:01:01	*15:58	*46:01:01	*01:02:01		SSO SBT NGS	

Table 15. Individual laboratory results for Cell #1589-1592 by serology

Investigator	Days Old	Cell No 1589 (Chinese)										Cell No 1590 (Asian)								Cell No 1591 (Asian)								Cell No 1592 (Chinese)												
		Viab %	A2	A30	B13	B75	Cw6	Cw8	Bw4	Bw6	OTHERS	Viab %	A33	B77	B44	Cw7	Cw8	Bw4	OTHERS	Viab %	A2	B54	B76	Cw1	Cw4	Bw6	OTHERS	Viab %	A2	A11	B62	B46	Cw1	Bw6	OTHERS					
Cecka, J. Mic		>95	+	+	+	+			+	+									>95	+	+	+				+		>95	+	+	+	+		+						
Dunckley, Hea	7	80	+	+	+	+													80	+	+	+					96	+	+	+				95	+	+	+	+		
Enczmann, J		98	+	+	+	+													98	+	+	+					98	+	+	+				98	+	+	+	+		
Ferrari-Lacra		80	+	+	+	B15	+	+	+	+									80	+	B15	+	+	+	+															
Fort, Marylis	6	97	+	+	+	+													95	+	+	+					NT									NT				
Hahn, Amy B.	2	99	+	+	+	+			+	+	A19,A31								99	+	+	+			+	B62, A74	99	+	+	+	+				99	+	+	+	+	
Hogan, Patric	14	90	+		+	+	+	+	+	+									90	+	+	+	+	+	+		90	+	+	+	+	+	+	+	+					
Jorgensen, La	7	95	+	+	+	B62	+				Cw5								95	+	B63	B53	+			A34,Cw5	95	+	+	+	+	+		Cw6	95	+	+	+	+	Cw3
Loewenthal ,		85	+		+	+			+	+									90	+	B15	+	+	+	+		80	+		B15	+	+			80	+	+	+	+	
Permpikul, Ve	6	80	+		+	+			+	+									80	+	+	+			+		80	+	A11.1	+	+				80	+	+	+	+	
Pule, Ziningi		80	+		+	B62	+				B70,B73								80	A19	B15	+	+			A34, B37	80	+	B45	B15		+		B55,Cw3	80	+	+	+	+	B70,Cw3
Rees, Tracey		90	+	+	+	+	+	+	+	+									90	+	+	+	+	+	+		90	+	+	+	+	+	+	+	+	+	+	+		
Renac, Virgin	3	100	+		+	B15			+	+									100	+	B15	+			+		100	+	B22	B15		+			100	+	+	B15	+	+
Shai, Isaac	8	90	+		+	B62		+	+	+									90	+	B63	+	+	+	+	B62	90	+		+	+	+	B55	86%	+	+	+	+	+	B70,Cw3
Vidan-Jeras,	6	100	+	+	+	+	+		+	+									100	+	+	+	+	+	+		100	+	+	+	+	+	+	+	+	+	+	+	+	
Watson, Narel	16	95	+		+	B15			+	+									93	+		+		+			95	+	B22	B15		+			90	+		B15		+
Zhang, Aiwen	2	95	+		+	+													95	+	B15	+	+				95	+		B15	+				95	+	+	B15	+	

SERUM EXCHANGE #556

The results for **Serum Exchange 556 (sera 1217 - 1220)**, are summarized in Tables 31-36 and individual laboratory results by method are listed in Tables 16-31. Sera strongly positive to A1, B8, B49, and B51 were examined in this study.

1217	method	#labs	A1	B8	A23	A36	A34	A24	B18	B64	B65	B14	B59	B76	A80	A26	A25	A43	A33	A68	A69	A29	B37	B42	B38	B55	B45	B44	
class I	NIH-Std	3	100	67																									
	NIH-Ext	2	100	100	50	50																							
	AHG	2	100	100	50	100	50	50	100	50	50	100																	
	Luminex	30	100	93	100	100	100	97	100	93	87	17	100	93	93	100	97	97	97	97	90	93	100	100	100	97	97	90	
	ELISA	1	no consensus																										
	Flow	1	no specificities assigned																										
	C1q	2	100	100	100	100		100	100	100	100		100	100	100														
	Other	4	50	50	25	50	25	50	50	25	25		25	25	50	25	25	25	25	25	25	25	25	25	25	25	25	25	

1217	method	#labs	B46	B39	B82	A11	A1102	A1101	B51	B75	B41	A66	A6601	B78	B7801	B67	B54	B35	B77	A30	B71	Cw15	Cw1	B53	B3901	B62	A32
class I	Luminex	30	90	87	83	80	50	27	77	77	70	50	63	60	13	80	100	77	77	70	63	60	30	27	23	23	
	Other	4	25	25	25	25			25	25	25	25		25		25											33

1217	method	#labs	DR13	DR17	DR18	DR52	DQ2	DR7	DR14	DR11	DP10	DP14	DP9	DPw1	DQ5	DPw3	DQ6	DQA1*05	DR9	DR12	DP17	DPA1*02	DP19	DQ7
class II	NIH-Ext	1	undefined																					
	Luminex	28	100	96	96	89	96	100	100	96	18	36	21	7	31	7		71	39	25	31	25	18	11
	Flow	1	no specificities assigned																					
	C1q	2	100	100	100	100	100																	
	Other	3	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33							

Serum 1217 was reported as strongly positivity to A1 and B8. Anti-A23 and -A36 reactivity was also reported, along with reactivity to A24, A34, B18, B14 (B64, B65), B59, B76, and A80. Additional reactivity to A29, A11, B38, B39, A68 and A69, as well as to a number of 5C, 7C, 8C, and 10C specificities was reported by Luminex single antigen and Luminex PRA. In

addition, 4 labs reported allele level reactivity to A*24:02 and among the 4, 2 reported A*30:02 reactivity as well. For class II, anti-DR13, -DR17, -DR18, -DR52, and -DQ2 reactivity was reported by Luminex, and C1q. Reactivity to a number of DP antigens was also reported by Luminex.

1218	method	#labs	A1	A36	B52	B51	B63	B13	A23	A29	A26	A25	A24	A2403	A32	A43	A80	A11	A1101	A1102	A3	A34	A66	A6601	B37	B38	B44	B53	B57	B58	B59	B47	B77	B49	B76	B27	B45	B82	Bw4	B8	B60	B61			
class I	NIH-Std	3	75																																										
	NIH-Ext	2	100	50	50				50																																				
	AHG	2	100	100	50	50	50	50		50	50																																50	50	
	Luminex	30	100	100	100	97	97	93	100	97	100	100	100	37	93	93	93	77	30	27	60	60	20	43	100	100	100	100	100	100	100	97	97	93	93	93	40	33	47	17					
	ELISA	1	no consensus																																										
	Flow	1	no specificities assigned																																										
	C1q	2	100	50																																									
	Other	4	50	50	25	25	25	25	50	50	50	50	50		50	25	50	50			25	25	25		25	25	25	25	25	25	25	25	25	25	25	25	25	25	25						

1218	method	#labs	DR11	DR15	DR16	DR13	DR8	DR51	DQ6	DR12	DR9	DQA1*01	NEG
class II	NIH-Ext	1	undefined										
	Luminex	28	86	100	100	11	71	93	64	51	43	7	
	Flow	1	no specificities assigned										
	C1q	2										50	
	Other	3	67	33	33	33	33						

For **Serum 1218**, strong reactivity to A1 was reported. Additional reactivity to B13 and a number of 1C, 5C, and 10C specificities was reported by various methods. Luminex also reported reactivity to some 8C and 12C specificities. In addition, allele level A*27:05 reactivity was reported by several labs. For class II, anti-DR11, -DR15, and -DR16 reactivity was reported by Luminex and PRA. Additional strong anti-DR51 reactivity was also reported by Luminex, along with weaker reactivity to DR8, DR9, DR12, and DQ6. Allele level reactivity to DRB1*12:02 and DQB1*06:01 was reported by a few labs.

1219	method	#labs	B49	A32	B27	B63	Bw4	B57	B58	A24	B53	B50	B51	B5	B35	B56	B71	B44	B13	B37	B38	B52	B59	B77	B47	A23	A29	A9	A25
class I	NIH-Std	3	33	67	33		67			33																			
	NIH-Ext	2	50	50	50		50	50	50	50																			
	AHG	2	100	100	100	50		100	50				50	50				50									50	50	
	Luminex	27	81	30		88	67				81	85	15		85	67	59												
	ELISA	1	no consensus																										
	Flow	1	no specificities assigned																										
	C1q	2	100	100	100	100	50	100	100	100	100		100					100	100	100	100	100	100	100	50	100		100	
	Other	4	50				25				50	25			50	25	25												

Serum 1219 was reported as positive to B49, along with A32, Bw4, and some 5C specificities. Several Luminex labs reported this sample as negative for class I. Hogan observed the antibodies which were detected by NIH were reduced with DTT treatment, indicating the presence of IgM antibodies. This sample was reported as negative for class II.

1219	method	#labs	NEG
class II	NIH-Ext	1	undefined
	Luminex	18	89
	Flow	1	no specificities assigned
	C1q	2	50
	Other		67

1220	method	#labs	B49	B51	B57	B58	B38	B44	B45	B50	B52	B53	B62	B71	B72	B70	B35	B13	B56	B59	B37	B41	B46	B47	Bw4	A32	A25	A23		
class I	NIH-Std	3	67	67	33	33	50	33			33	33													33	33				
	NIH-Ext	2	50	50	50	50	50	50	50	100			100	50	50		50								50					
	AHG	2	50	100			50	50		50	100						100	50										50		
	Luminex	29	100	100	100	97	100	100	100	100	100	100	97	97	97	33	100	100	100	100	100	100	100	100	33	93	100	100		
	ELISA	1	no consensus																											
	Flow	1	no specificities assigned																											
	C1q	2	100	100	100	100	100	100	100	100	100	100	100	100	100		100	100	100	100	100						100	100		
	Other	4	50	50	25	25	25	50	50	50	50	50	50	50	50			50	50	25	25	25	25	25						
1220	method	#labs	B63	B75	B77	B15	B78	B7801	A24	A2403	B18	B54	B55	B76	B60	B61	B40	B64	B39	B3901	B48	B67	B42	B65	A29	B8	B82	Cw10	Cw9	Cw3
class I	AHG	2				50					50																			
	Luminex	29	97	97	97		86	28	97	38	100	100	100	93	90	90	21	90	86	24	72	62	48	79	52	38	34	90	90	17
	C1q	2	100	100	100		100			50																				

1220	method	#labs	DR52	DR11	DR18	DR17	DQ7	DQ8	DQ9	DP18	DP28	DPw2	DP10	DR13	DPw4	DP402	DR7	DR14	DR3	DPA1*01
class II	NIH-Ext	1																		
	Luminex	27	93	100	96	93	93	89	89	85	67	63	56	56	37	30	22	22	19	15
	Flow	1	no specificities assigned																	
	C1q	2	100																	
	Other		33	33	33	33	67	67	67											

For **Serum 1220**, reactivity to B49 and B51 was reported. Additional reactivity to other 5C specificities, as well as to B38, 7C and 12C specificities was reported by various methods. Luminex reported additional strong reactivity to Cw9, Cw10, and to a number of 8C and 10C specificities. For class II, strong anti-DR52 reactivity was reported by Luminex and C1q. In addition, Luminex reported reactivity to DR11, DR17, DR18, DQ3 (DQ7, DQ8, DQ9) and reactivity to a number of DP antigens.

NEXT MAILING DATE: August 9, 2017

Arlene Locke, David Gjertson, Qiheng Zhang, and Elaine F. Reed

Table 16. Summary of the 556th Serum Exchange (Serum #1217-1220) by NIH-Standard and NIH-Extended - class I

Method: NIH-Standard											
*** Serum 1217 ***			*** Serum 1218 ***			*** Serum 1219 ***			*** Serum 1220 ***		
3 typing Labs			4 typing Labs			3 typing Labs			3 typing Labs		
Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion
A1	100%	92%	A1	75%	71%	A32	67%	100%	B49	67%	100%
B8	67%	100%				Bw4	67%	88%	B51	67%	100%
						B27	33%	100%	B44	33%	100%
						B49	33%	100%	B52	33%	100%
						A24	33%	50%	B53	33%	100%
									B57	33%	100%
									B58	33%	100%
									B70	33%	100%
									Bw4	33%	83%
									A32	33%	25%

Method: NIH-Extended											
*** Serum 1217 ***			*** Serum 1218 ***			*** Serum 1219 ***			*** Serum 1220 ***		
2 typing Labs			2 typing Labs			2 typing Labs			2 typing Labs		
Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion
A1	100%	100%	A1	100%	91%	A32	50%	100%	B50	100%	100%
B8	100%	57%	A36	50%	100%	B27	50%	100%	B62	100%	100%
A36	50%	100%	B52	50%	100%	B49	50%	100%	B38	50%	100%
A23	50%	75%	A23	50%	50%	B57	50%	100%	B44	50%	100%
						B58	50%	100%	B45	50%	100%
						Bw4	50%	97%	B49	50%	100%
						A24	50%	33%	B51	50%	100%
									B57	50%	100%
									B58	50%	100%
									B71	50%	100%
									B72	50%	100%
									Bw4	50%	97%
									B35	50%	67%

Table 17. Summary of the 556th Serum Exchange (Serum #1217-1220) by Antiglobulin and Other - class I

Method: Antiglobulin											
*** Serum 1217 ***			*** Serum 1218 ***			*** Serum 1219 ***			*** Serum 1220 ***		
2 typing Labs			2 typing Labs			2 typing Labs			2 typing Labs		
Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion
A1	100%	100%	A1	100%	100%	A32	100%	100%	B35	100%	100%
B8	100%	100%	A36	100%	100%	B27	100%	100%	B51	100%	100%
B14	100%	88%	A26	50%	100%	B49	100%	100%	B52	100%	100%
A36	100%	83%	A29	50%	100%	B57	100%	75%	A23	50%	100%
B18	100%	73%	B13	50%	100%	A29	50%	100%	B13	50%	100%
A23	50%	100%	B60	50%	100%	A9	50%	100%	B15	50%	100%
A24	50%	100%	B63	50%	100%	B5	50%	100%	B18	50%	100%
A34	50%	100%	B52	50%	75%	B58	50%	100%	B38	50%	100%
B64	50%	100%	B51	50%	67%	B63	50%	100%	B44	50%	100%
B65	50%	100%	B61	50%	67%	B44	50%	88%	B49	50%	100%
						B51	50%	83%	B50	50%	100%

Method: Other											
*** Serum 1217 ***			*** Serum 1218 ***			*** Serum 1219 ***			*** Serum 1220 ***		
4 typing Labs			4 typing Labs			4 typing Labs			4 typing Labs		
Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion
A1	50%	100%	A1	50%	100%	B35	50%	100%	B13	50%	100%
A36	50%	100%	A11	50%	100%	B49	50%	100%	B18	50%	100%
A80	50%	100%	A23	50%	100%	B53	50%	100%	B35	50%	100%
B18	50%	100%	A24	50%	100%	B50	25%	100%	B44	50%	100%
B8	50%	100%	A25	50%	100%	B56	25%	100%	B45	50%	100%
A24	50%	50%	A26	50%	100%	B63	25%	100%	B49	50%	100%
A11	25%	100%	A29	50%	100%	B71	25%	100%	B50	50%	100%
A23	25%	100%	A32	50%	100%				B51	50%	100%
A25	25%	100%	A36	50%	100%				B52	50%	100%
A26	25%	100%	A80	50%	100%				B53	50%	100%
A29	25%	100%	A3	25%	100%				B55	50%	100%
A32	25%	100%	A43	25%	100%				B56	50%	100%
A33	25%	100%	B13	25%	100%				B60	50%	100%
A34	25%	100%	B37	25%	100%				B62	50%	100%
A43	25%	100%	B38	25%	100%				B63	50%	100%
A68	25%	100%	B44	25%	100%				B71	50%	100%
A69	25%	100%	B45	25%	100%				B72	50%	100%
B37	25%	100%	B47	25%	100%				B75	50%	100%

Table 18. Summary of the 556th Serum Exchange (Serum #1217-1220) by C1q, ELISA, and Flow cytometry - class I

Method: C1q												
*** Serum 1217 ***			*** Serum 1218 ***			*** Serum 1219 ***			*** Serum 1220 ***			
2 typing Labs			2 typing Labs			2 typing Labs			2 typing Labs			
Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	
A1	100%	100%	A1	100%	100%	A23	100%	100%	A25	100%	100%	
A23	100%	100%	A36	50%	100%	A24	100%	100%	A32	100%	100%	
A24	100%	100%				A25	100%	100%	B13	100%	100%	
A36	100%	100%				A32	100%	100%	B35	100%	100%	
A80	100%	100%				B13	100%	100%	B37	100%	100%	
B18	100%	100%				B27	100%	100%	B38	100%	100%	
B59	100%	100%				B37	100%	100%	B44	100%	100%	
B64	100%	100%				B38	100%	100%	B45	100%	100%	
B65	100%	100%				B44	100%	100%	B46	100%	100%	
B76	100%	100%				B49	100%	100%	B49	100%	100%	
B8	100%	100%				B51	100%	100%	B50	100%	100%	
						B52	100%	100%	B51	100%	100%	
						B53	100%	100%	B52	100%	100%	
						B57	100%	100%	B53	100%	100%	
						B58	100%	100%	B56	100%	100%	
						B59	100%	100%	B57	100%	100%	
						B63	100%	100%	B58	100%	100%	
						B77	100%	100%	B59	100%	100%	
						B47	50%	100%	B62	100%	100%	
						Bw4	50%	100%	B63	100%	100%	
									B71	100%	100%	
									B72	100%	100%	
									B75	100%	100%	
									B77	100%	100%	
									B78	100%	100%	

Method: ELISA												
*** Serum 1217 ***			*** Serum 1218 ***			*** Serum 1219 ***			*** Serum 1220 ***			
1 typing Lab			1 typing Lab			1 typing Lab			1 typing Lab			
Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	
no consensus			no consensus			no consensus			no consensus			

Method: Flow Cytometry												
*** Serum 1217 ***			*** Serum 1218 ***			*** Serum 1219 ***			*** Serum 1220 ***			
1 typing Lab			1 typing Lab			1 typing Lab			1 typing Lab			
Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	
no antigens assigned			no antigens assigned			no antigens assigned			no antigens assigned			

Table 19. Summary of the 556th Serum Exchange (Serum #1217-1220) by Luminex - class I

Method: Luminex											
*** Serum 1217 ***			*** Serum 1218 ***			*** Serum 1219 ***			*** Serum 1220 ***		
30 typing Labs			30 typing Labs			27 typing Labs			29 typing Labs		
Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion
A1	100%	100%	A1	100%	100%	B63	88%	67%	A23	100%	100%
A23	100%	100%	A23	100%	100%	B50	85%	80%	A25	100%	100%
A26	100%	100%	A25	100%	100%	B35	85%	71%	B13	100%	100%
A36	100%	100%	A26	100%	100%	B49	81%	100%	B18	100%	100%
B18	100%	100%	A36	100%	100%	B53	81%	100%	B35	100%	100%
B37	100%	100%	B37	100%	100%	B56	67%	83%	B37	100%	100%
B42	100%	100%	B44	100%	100%	B71	59%	100%	B38	100%	100%
B54	100%	100%	B52	100%	100%	A32	30%	100%	B41	100%	100%
B59	100%	100%	B57	100%	100%	B51	15%	100%	B44	100%	100%
A34	100%	88%	B58	100%	100%				B45	100%	100%
B38	100%	83%	B59	100%	100%				B46	100%	100%
A25	97%	100%	A24	100%	93%				B47	100%	100%
A43	97%	100%	B38	100%	83%				B49	100%	100%
B55	97%	100%	B53	100%	83%				B50	100%	100%
A68	97%	83%	B47	97%	100%				B51	100%	100%
A33	97%	80%	B51	97%	100%				B52	100%	100%
B45	97%	80%	B63	97%	100%				B53	100%	100%
A24	97%	79%	B77	97%	100%				B54	100%	100%
A29	93%	100%	A29	97%	85%				B55	100%	100%
A80	93%	100%	A32	93%	100%				B56	100%	100%
B64	93%	100%	A43	93%	100%				B57	100%	100%
B76	93%	100%	A80	93%	100%				B59	100%	100%
B8	93%	100%	B49	93%	100%				A24	97%	100%
A69	90%	100%	B76	93%	100%				B58	97%	100%
B44	90%	88%	B13	93%	67%				B62	97%	100%
B46	90%	67%	B27	93%	56%				B63	97%	100%
B39	87%	100%	A11	77%	83%				B71	97%	100%
B65	87%	100%	A3	60%	100%				B72	97%	100%
B82	83%	100%	A34	60%	67%				B75	97%	100%
A11	80%	83%	Bw4	47%	100%				B77	97%	100%
B51	77%	71%	A6601	43%	50%				A32	93%	100%
B75	77%	62%	B45	40%	100%				B76	93%	100%
B41	70%	100%	A2403	37%	100%				B60	90%	100%
A6601	63%	50%	B82	33%	100%				B61	90%	100%
B78	60%	100%	A1101	30%	100%				B64	90%	100%
A66	50%	50%	A1102	27%	100%				Cw10	90%	100%
B67	43%	100%	A66	20%	100%				Cw9	90%	100%
B35	40%	100%	A74	17%	100%				B39	86%	100%

Table 19. Summary of the 556th Serum Exchange (Serum #1217-1220) by Luminex - class I

Method: Luminex - continued								
*** Serum 1217 ***			*** Serum 1218 ***			*** Serum 1220 ***		
30 typing Labs			30 typing Labs			29 typing Labs		
Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion
B77	40%	100%	B8	17%	83%	B78	86%	100%
A30	40%	50%	B15	10%		B65	79%	100%
B71	37%	100%	B8201	10%		B48	72%	100%
Cw15	37%	100%				B67	62%	100%
A1102	30%	100%				A29	52%	100%
Cw1	30%	100%				B42	48%	100%
A1101	27%	100%				A2403	38%	100%
B53	27%	100%				B8	38%	100%
B3901	23%	100%				B82	34%	100%
B62	23%	100%				B7801	28%	100%
B14	17%	100%				B3901	24%	100%
B7801	13%	100%				B40	21%	100%
						Cw3	17%	100%

Table 20. Summary of the 556th Serum Exchange (Serum #1217-1220) by Other and C1q - class II

Method: Other											
*** Serum 1217 ***			*** Serum 1218 ***			*** Serum 1219 ***			*** Serum 1220 ***		
3 typing Labs			3 typing Labs			3 typing Labs			3 typing Labs		
Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion
DP10	33%	100%	DR11	67%	100%	NEG	67%	100%	DQ7	67%	60%
DP14	33%	100%	DQ2	33%	100%	DR11	33%	100%	DQ8	67%	33%
DP9	33%	100%	DR13	33%	100%	DR15	33%	100%	DQ9	67%	33%
DPW1	33%	100%	DR14	33%	100%	DR16	33%	100%	DR11	33%	100%
DQ2	33%	100%	DR15	33%	100%	DR51	33%	100%	DR17	33%	100%
DQ5	33%	100%	DR16	33%	100%	DR8	33%	100%	DR18	33%	100%
DR11	33%	100%	DR17	33%	100%	DR12	33%	50%	DR52	33%	100%
DR13	33%	100%	DR18	33%	100%	DR9	33%	50%			
DR14	33%	100%	DR52	33%	100%	DQ6	33%	17%			
DR17	33%	100%	DR7	33%	100%						
DR18	33%	100%	DR8	33%	100%						
DR52	33%	100%	DQ5	33%	50%						
DR7	33%	100%	DQ7	33%	40%						
DQ6	33%	83%									
DPW3	33%	33%									

Method: C1q											
*** Serum 1217 ***			*** Serum 1218 ***			*** Serum 1219 ***			*** Serum 1220 ***		
2 typing Labs			2 typing Labs			2 typing Labs			2 typing Labs		
Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion
DQ2	100%	100%	no antigens assigned			no antigens assigned			DR52	100%	100%
DR17	100%	100%									
DR18	100%	100%									
DR52	100%	100%									
DR13	50%	100%									

Table 21. Summary of the 556th Serum Exchange (Serum #1217-1220) by Luminex - class II

Method: Luminex											
*** Serum 1217 ***			*** Serum 1218 ***			*** Serum 1219 ***			*** Serum 1220 ***		
28 typing Labs			28 typing Labs			18 typing Labs			27 typing Labs		
Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion
DR13	100%	100%	DR15	100%	100%	NEG	89%	100%	DR11	100%	100%
DR14	100%	100%	DR16	100%	100%	DQ7	6%	100%	DR18	96%	100%
DR7	100%	100%	DR51	93%	85%	DQ8	6%	100%	DR17	93%	100%
DQ2	96%	100%	DR11	86%	88%	DQ9	6%	100%	DR52	93%	100%
DR11	96%	100%	DR8	71%	100%	DQA1*03	6%	100%	DQ7	93%	95%
DR17	96%	100%	DQ6	64%	17%				DQ8	89%	78%
DR18	96%	100%	DR12	51%	40%				DQ9	89%	78%
DR52	89%	100%	DR9	43%	50%				DP18	85%	100%
DQA1*05	71%	100%	DR13	11%	100%				DP28	67%	67%
DR9	39%	100%	DQA1*01	7%	100%				DPW2	63%	100%
DP14	36%	100%	DP18	4%	100%				DP10	56%	100%
DP17	31%	100%	DPA1*01	4%	100%				DR13	56%	50%
DQ5	31%	100%	DQ5	4%	100%				DPW4	37%	50%
DPA1*02	25%	100%	DR2	4%	100%				DP402	30%	100%
DR12	25%	100%							DR7	22%	100%
DP9	21%	100%							DR14	22%	67%
DPW5	21%	100%							DR3	19%	100%
DP10	18%	100%							DPA1*01	15%	100%
DP13	14%	100%							DQ3	11%	100%
DR3	14%	100%							DQA1*03	11%	100%
DP19	11%	100%							DQA1*05	11%	100%
DQ7	11%	40%							DQA1*06	11%	100%
DP28	7%	100%							DPA1*04	7%	100%
DPW1	7%	100%							DPA1*02	4%	100%
DPW3	7%	100%							DR1	4%	100%
DPW6	7%	100%							DR12	4%	100%
DQA1*01	7%	100%							DR8	4%	100%
DP11	4%	100%							DQ2	4%	20%
DPA1*04	4%	100%									
DQ1	4%	100%									
DQ3	4%	100%									
DQ4	4%	100%									
DQA1*04	4%	100%									
DR1403	4%	100%									
DR6	4%	100%									

Table 22. Individual laboratory results for Serum #1217-1220 by NIH-Standard and NIH-Extended - class I

	**** Serum 1217 ****					**** Serum 1218 ****					**** Serum 1219 ****					**** Serum 1220 ****						
Investigator	% POS	A1	B8		Other	% POS	A1			Other	% POS	A32	Bw4		Other	% POS	B49	B51		Other	Method	
Fort, Marylise	NT					0					NT					NT						STD
Hogan, Patrick	26	+	+			20	+				56	+	+			54	+	+			B44,A32,B57,B58	STD
Vasilescu, Rodica	22	+	+			14	+				42				B49,B27	40	+	+			B70,B52,B53	STD
Watson, Narelle	17	+				10	+				65	+	+		A24	65					Bw4	STD

STD = NIH-Standard

	**** Serum 1217 ****					**** Serum 1218 ****					**** Serum 1219 ****					**** Serum 1220 ****						
Investigator	% POS	A1	B8	A36	Other	% POS	A1	A36	B52	Other	% POS	A32	B27	B49	Other	% POS	B50	B62	B38	Other	Method	
Lardy, N.M.	38	+	+	+	A23	28	+	+		A23	62	+			A24,Bw4	75	+	+			B35,Bw4	EXT
Reed, Elaine F. PhD	18	+	+			21	+		+		60		+	+	B57,B58	73	+	+	+		B49,B44,B51,B45 >	EXT

EXT = NIH-Extended

Table 23. Individual laboratory results for Serum #1217-1220 by Antiglobulin ad Other - class I

	**** Serum 1217 ****							**** Serum 1218 ****																
Investigator	% POS	A1	B8	B14	A36	B18	Other	% POS	A1	A36	A26	A29	B13										Other	Method
Hahn, Amy B. PhD		+	+	+	+	+	A34,B64,B65		+	+	+	+	+										B60,B61,B51,B52 >	AHG
Vasilescu, Rodica	22	+	+	+	+	+	A24,A23	19	+	+														AHG

	**** Serum 1219 ****						**** Serum 1220 ****																	
Investigator	% POS	A32	B27	B49	B57	A29	Other	% POS	B35	B51	B52	A23	B13										Other	Method
Hahn, Amy B. PhD		+	+	+	+	+	B44,B51,B63,B58		+	+	+	+											A24,B62,B50,B44 >	AHG
Vasilescu, Rodica	52	+	+	+	+		A9,B5	64	+	+	+		+										B15,B70,B49,B53 >	AHG

	**** Serum 1217 ****							**** Serum 1218 ****																						
Investigator	% POS	A1	A36	A80	B18	B8	A24	Other	% POS	A1	A11	A23	A24	A25	A26	A29	A32	A36	A80										Other	Method
Hamdi, Nuha	84	+	+	+	+	+	+	A11,A66,B78,B44,B51>	82	+	+	+	+	+	+	+	+	+	+										A3,A43,A66,B49,B13,B47>	Other
Liu, Chang MD, PhD	89								87																					Other
McCluskey, James	41								34																					Other
Reed, Elaine F. PhD	92	+	+	+	+	+	+	A23	92	+	+	+	+	+	+	+	+	+	+											Other

	**** Serum 1219 ****						**** Serum 1220 ****																					
Investigator	% POS	B35	B49	B53	B50	B56	Other	% POS	B13	B18	B35	B44	B45	B49	B50	B51	B52	B53	B55	B56	B60	B62	B63	B71	B72	B75	Other	Method
Hamdi, Nuha	18	+	+	+	+	+	B63,B71	98	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A24,B61,B48,B78 >	Other
Liu, Chang MD, PhD	15							98																				Other
McCluskey, James	56							53																				Other
Reed, Elaine F. PhD	42	+	+	+				94	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		Other

Table 24. Individual laboratory results for Serum #1217-1220 by C1q, Elisa, and Flow Cytometry - class I

**** Serum 1217 ****														**** Serum 1218 ****														
Investigator	% POS	B8	A1	A23	A24	A36	A80	B18	B59	B64	B65	B76	Other	% POS	A1	A36										Other	Method	
Colombe, Beth W.	43	+	+	+	+	+	+	+	+	+	+	+		25	+	+												C1q
Liu, Chang MD, Ph		+	+	+	+	+	+	+	+	+	+	+			+													C1q

**** Serum 1219 ****														**** Serum 1220 ****																																			
Investigator	% POS	A23	A24	A25	A32	B13	B27	B37	B38	B44	B49	B51	B52	B53	B57	B58	B59	B63	B77	Other	% POS	A25	A32	B13	B35	B37	B38	B44	B45	B46	B49	B50	B51	B52	B53	B56	B57	B58	B59	B62	B63	B71	B72	B75	B77	B78	Other	Method	
Colombe, Beth W.	73	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B47,Bw4	80	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B47,A2403	C1q
Liu, Chang MD, Ph		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		C1q	

**** Serum 1217 ****														**** Serum 1218 ****																																			
Investigator	% POS	B8	A1	A23	A24	A36	A80	B18	B59	B64	B65	B46	B55	A29	B37	A34	B54	B42	A33	Other	% POS	A1	A36	B59	B53	B52	B63	B27	B51	B57	B58	A29	B37											Other	Method				
Hahn, Amy B. PhD		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B49,B13>	Elisa		
Eckels/CPMC	95																				92																												FC

**** Serum 1219 ****														**** Serum 1220 ****																																				
Investigator	% POS	B35	A32	B50	B63															Other	% POS	A25	A32	B13	B35	B37	B38	B44	B45	B46	B49	B50	B51	B52	B53	B56	B57	B58	B59	B62	B63	B71	B72	B75	B60	B78	Other	Method		
Hahn, Amy B. PhD		+	+	+	+																	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B61,B41>	Elisa	
Eckels/CPMC	75																				94																													FC

FC = Flow cytometry

Table 26. Individual laboratory results for Serum #1217 Luminex - class I

		**** Serum 1217 ****																																						
Investigator	% POS	A1	A23	A26	A36	B18	B37	B42	B54	B59	A34	B38	A25	A43	B55	A68	A33	B45	A24	A29	A80	B64	B76	B8	A69	B44	B46	B39	B65	B82	A11	B51	B75	B41	A6601	B78	A66	Other	Method	
Al-Attas, Rabab A. M	Multi	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B53,B67,A30,B77 >	LMX
Arnold, Paula PhD		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A1101,A1102,B3901	LMX
Bengochea, Carretto	39	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B3901	LMX	
Cecka, J. Michael P	71	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	LMX	
Chen, Dong-Feng P		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B67,A30,B77,B35 >	LMX	
Colombe, Beth W. F	84	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	LMX		
Daniel, Dolly	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A9,B15,A10,A28 >	LMX		
Du, Keming	34	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B49,B13,B27,B7 >	LMX	
Dunckley, Heather	97	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B67,A30,B77,B35 >	LMX	
Eckels/CPMC,		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B67	LMX	
Fort, Marylise		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B62,B53,B67,A30 >	LMX	
Gideoni, Osnat	92	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	CW4,B48,B62,B49 >	LMX	
Hahn, Amy B. PhD		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B67,A30,B77,B35 >	LMX	
Hogan, Patrick	41	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B71	LMX	
Holdsworth, Rhonda		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B62,B53,B67,A30 >	LMX	
Lardy, N.M.		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		LMX	
Liu, Chang MD, PhD		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		LMX	
Loewenthal , Ron M	39	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B7801,A1101,A1102>	LMX	
Mayne, Elizabeth	38	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B15,B14,A1101,A1102>	LMX	
McCluskey, James		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B62,B53,B67,A30 >	LMX	
Pancoska, Carol Ph	67	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		LMX	
Permpikul, Vejbaesy	42	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		LMX	
Pule, Ziningi	39	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B15,B14,BW4,BW6	LMX	
Reed, Elaine F. PhD		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	LMX	
Sacchi, Nicoletta		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B49,B13,B27,B7 >	LMX
V.Brouard, M.Tonye	85	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B67,A30,B14,B77 >	LMX	
Vasilescu, Rodica		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B62,B53,B67,A30 >	LMX
Vather/JHB,		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B62,B53,B67,A30 >	LMX
Vather/Pinetown,		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B62,B53,B67,A30 >	LMX
Xu, Ri	36	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B14,B12C,B5C,B8C >	LMX	

Table 28. Individual laboratory results for Serum #1219 Luminex - class I

**** Serum 1219 ****											
Investigator	% POS	B63	B50	B35	B49	B53	B56	B71	A32	Other	Method
Al-Attas, Rabab A. M	Multi	+	+	+	+	+	+	+	+		LMX
Arnold, Paula PhD		+	+	+	+	+	+	+			LMX
Bengochea, Carrette	0										LMX
Cecka, J. Michael P	13	+	+	+	+	+	+				LMX
Chen, Dong-Feng P		+	+	+	+	+	+	+			LMX
Colombe, Beth W. F	30	+	+	+	+	+	+	+			LMX
Daniel, Dolly	1	+			+					B15	LMX
Du, Keming	7	+	+	+		+	+	+		B46	LMX
Dunckley, Heather	19	+	+	+	+	+	+	+			LMX
Eckels/CPMC,		+	+	+	+	+	+	+			LMX
Fort, Marylise	NT										LMX
Gideoni, Osnat											LMX
Hahn, Amy B. PhD		+	+	+	+	+	+	+			LMX
Hogan, Patrick	0										LMX
Holdsworth, Rhonda		+	+	+	+	+	+	+	+	B27,B51,B38,B58 >	LMX
Lardy, N.M.		+	+	+	+	+					LMX
Liu, Chang MD, PhD		+	+	+	+	+	+	+			LMX
Loewenthal , Ron M	5	+	+	+	+	+					LMX
Mayne, Elizabeth	7	+	+	+	+	+			+	B15,B27,B38	LMX
McCluskey, James		+	+	+	+	+	+	+	+		LMX
Pancoska, Carol Ph	18	+	+	+	+	+					LMX
Permpikul, Vejbaesy											LMX
Pule, Ziningi	0										LMX
Reed, Elaine F. PhD		+	+	+	+	+	+	+			LMX
Sacchi, Nicoletta		+	+	+			+			B46	LMX
V.Brouard, M.Tonye	10	+	+	+	+	+	+	+	+		LMX
Vasilescu, Rodica		+	+	+	+	+	+	+	+	B51,B8101	LMX
Vather/JHB,		+	+	+	+	+	+	+	+	B51,B81	LMX
Vather/Pinetown,		+	+	+	+	+	+	+	+	B51	LMX
Xu, Ri	6	+	+	+	+	+				B12C,B5C	LMX

Table 30. Individual laboratory results for Serum #1217-#1220 by various methods - class II

Investigator	**** Serum 1217 ****										**** Serum 1218 ****										**** Serum 1219 ****										**** Serum 1220 ****										Method	
	% POS	DP10	DP14	DP9	DPw1	DQ2	DQ5	DR11	DR13	DR14	Other	% POS	DR11	DQ2	DR13	DR14	DR15	DR16	DR17	DR18	DR52	Other	% POS	DR11	DR15	DR16	DR51	DR8	DR12	DR9	DQ6	Other	% POS	DQ7	DQ8	DQ9	DR11	DR17	DR18	DR52		Other
Hamdi, Nuha	30	+	+	+	+		+				DPw3,DQ6	86	+	+	+	+			+	+	+	DR7,DQ5>	46	+	+	+	+	+	+	+			0	+	+	+						Other
Liu, Chang MD, Ph	86											49											0									71									Other	
Reed, Elaine F. Ph	63				+		+	+	+		DR7,DR17>	40	+			+	+					DR8	0									77	+	+	+	+	+	+	+		Other	

Investigator	**** Serum 1217 ****										**** Serum 1218 ****										**** Serum 1219 ****										**** Serum 1220 ****										Method			
	% POS	DQ2	DR17	DR18	DR52	DR13	Other				Other	% POS										Other	% POS																Other					
Colombe, Beth W.	74	+	+	+	+	+					Other	0										Other	0																	Other	C1q			
Liu, Chang MD, Ph		+	+	+	+								no specificities assigned																															C1q
Eckels/CPMC	85											54											0																		FC			
Reed, Elaine F. Ph	U											U											U																		EXT			

U = undetermined

Table 31. Individual laboratory results for Serum #1217 by Luminex - class II

		**** Serum 1217 ****																								
Investigator	% POS	DR13	DR14	DR7	DQ2	DR11	DR17	DR18	DR52	DQA1*05	DR9	DP14	DP17	DQ5	DPA1*02	DR12	DP9	DPW5	DP10	DP13	DR3	DP19	DQ7	Other	Method	
Al-Attas, Rabab A. M	Multi	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+							LMX
Arnold, Paula PhD		+	+	+	+	+	+	+	+																	LMX
Bengochea, Carrette	40	+	+	+	+	+	+	+	+	+	+	+	+			+					+		+		DQ4,DPW1,DP28,DPA1*04	LMX
Cecka, J. Michael P	83	+	+	+	+	+	+	+	+																	LMX
Chen, Dong-Feng P		+	+	+	+	+	+	+	+	+	+	+	+	+			+	+	+	+					DPW3,DPW6	LMX
Colombe, Beth W. F	77	+	+	+	+	+	+	+	+	+	+	+	+									+	+	+		LMX
Daniel, Dolly	20	+	+	+	+	+	+	+	+	+	+	+	+		+							+	+	+		LMX
Du, Keming	17	+	+	+	+		+	+	+																	LMX
Dunckley, Heather	77	+	+	+	+	+	+	+	+	+		+						+	+						DPW3,DQA1*01	LMX
Eckels/CPMC,		+	+	+	+	+	+	+	+	+															DQB1*05:01	LMX
Fort, Marylise		+	+	+	+	+	+	+	+					+										+		LMX
Gideoni, Osnat	67	+	+	+	+	+	+	+	+							+								+		LMX
Hahn, Amy B. PhD		+	+	+	+	+	+	+	+	+																LMX
Hogan, Patrick	34	+	+	+	+	+	+	+	+	+	+	+	+		+								+			LMX
Holdsworth, Rhonda		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+					DQB1*05:01,DRB1*09:01	LMX
Liu, Chang MD, PhD		+	+	+	+	+	+	+	+	+																LMX
Loewenthal , Ron M	21	+	+	+	+	+	+	+	+																DR1403	LMX
Mayne, Elizabeth	32	+	+	+	+	+	+	+	+	+	+	+	+										+			LMX
McCluskey, James		+	+	+	+	+	+	+	+	+																LMX
Pancoska, Carol Ph	26	+	+	+	+	+	+	+	+	+																LMX
Permpikul, Vejbaesy	22	+	+	+	+	+	+	+	+	+				+												LMX
Pule, Ziningi	40	+	+	+	+	+					+						+					+			DQ1,DQ3	LMX
Reed, Elaine F. PhD		+	+	+	+	+	+	+	+	+	+			+												LMX
Sacchi, Nicoletta		+	+	+	+	+	+	+	+															+		LMX
V.Brouard, M.Tonye	81	+	+	+	+	+	+	+	+	+				+	+											LMX
Vather/JHB,		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+				DPW1,DPW6,DP11,DQA1*01 >	LMX
Vather/Pinetown,		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+						LMX
Xu, Ri	22	+	+	+	+	+	+	+	+	+													+			LMX

Table 31. Individual laboratory results for Serum #1218-#1219 by Luminex - class II

Investigator	**** Serum 1218 ****											**** Serum 1219 ****					Method	
	% POS	DR15	DR16	DR51	DR11	DR8	DQ6	DR12	DR9	DR13	Other	% POS	DQ7	DQ8	DQ9	DQA1*03		Other
Al-Attas, Rabab A. M	Multi	+	+	+	+	+	+	+	+			0						LMX
Arnold, Paula PhD		+	+	+	+		+	+			DQB1*06:01,DRB1*12:02							LMX
Bengochea, Carrette	17	+	+	+	+	+	+		+	+	DQ5,DP18,DPA1*01,DQA1*01	0						LMX
Cecka, J. Michael P	46	+	+	+	+			+				0						LMX
Chen, Dong-Feng P		+	+	+	+	+		+	+									LMX
Colombe, Beth W. F	47	+	+	+	+		+	+				0						LMX
Daniel, Dolly	5	+	+	+	+	+	+		+		DR2	0						LMX
Du, Keming	8	+	+	+			+	+										LMX
Dunckley, Heather	51	+	+	+	+	+	+	+				0						LMX
Eckels/CPMC,		+	+	+							DQB1*06:01							LMX
Fort, Marylise		+	+	+	+	+	+	+	+			NT						LMX
Gideoni, Osnat	40	+	+	+		+												LMX
Hahn, Amy B. PhD		+	+	+	+	+		+	+									LMX
Hogan, Patrick	15	+	+	+	+	+				+		0						LMX
Holdsworth, Rhonda		+	+	+	+	+	+	+	+		DQB1*06:01,DRB1*12:02		+	+	+			LMX
Liu, Chang MD, PhD		+	+	+	+			+										LMX
Loewenthal , Ron M	14	+	+		+	+		+		+		0						LMX
Mayne, Elizabeth	12	+	+	+	+	+						0						LMX
McCluskey, James		+	+	+	+	+	+	+	+		DQB1*06:01				+	DQA1*03:02		LMX
Pancoska, Carol Ph	12	+	+	+	+		+					0						LMX
Permpikul, Vejbaesy	14	+	+	+	+	+	+	+	+									LMX
Pule, Ziningi	15	+	+		+	+	+					0						LMX
Reed, Elaine F. PhD		+	+	+	+	+					DQB1*06:01,DRB1*12:02	0						LMX
Sacchi, Nicoletta		+	+	+			+					0						LMX
V.Brouard, M.Tonye	46	+	+	+	+	+	+	+	+			0						LMX
Vather/JHB,		+	+	+	+	+	+	+	+		DQA1*01							LMX
Vather/Pinetown,		+	+	+	+	+	+	+	+			0						LMX
Xu, Ri	15	+	+	+	+	+	+					0						LMX

Table 31. Individual laboratory results for Serum #1220 by Luminex - class II

		**** Serum 1220 ****																				
Investigator	% POS	DR11	DR18	DR17	DR52	DQ7	DQ8	DQ9	DP18	DP28	DPW2	DP10	DR13	DPW4	DP402	DR7	DR14	DR3	DPA1*01	Other	Method	
Al-Attas, Rabab A. M	Multi	+	+	+	+	+	+	+	+	+	+	+	+		+	+						LMX
Arnold, Paula PhD		+	+	+	+	+	+	+	+	+												LMX
Bengochea, Carrette		+	+	+	+	+	+	+	+	+				+						+	DPA1*02	LMX
Cecka, J. Michael P	71	+	+	+	+	+																LMX
Chen, Dong-Feng P		+	+	+	+	+	+	+	+	+	+	+	+		+							LMX
Colombe, Beth W. F	77	+	+	+	+	+	+	+	+	+		+										LMX
Daniel, Dolly	10	+	+	+	+	+	+	+	+	+		+	+	+				+	+	+	DQ3	LMX
Du, Keming	9	+	+	+	+		+	+														LMX
Dunckley, Heather	81	+	+	+	+	+	+	+	+	+	+	+	+	+								LMX
Eckels/CPMC,		+	+	+	+	+	+	+	+	+	+	+	+		+							LMX
Fort, Marylise	NT																					LMX
Gideoni, Osnat	67	+	+	+	+	+							+				+	+			DR12	LMX
Hahn, Amy B. PhD		+	+	+	+	+	+	+	+	+	+	+		+								LMX
Hogan, Patrick	23	+	+	+	+	+	+	+	+		+											LMX
Holdsworth, Rhonda		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+					LMX
Liu, Chang MD, PhD		+	+	+	+	+	+	+	+	+	+	+		+								LMX
Loewenthal , Ron M	25	+	+		+	+	+	+	+	+		+	+	+						+		LMX
Mayne, Elizabeth	26	+	+	+	+	+	+	+	+										+		DQ3	LMX
McCluskey, James		+	+	+	+	+	+	+	+	+	+	+	+		+	+	+				DRB1*14:01	LMX
Pancoska, Carol Ph	71	+	+	+	+	+	+	+	+	+		+										LMX
Permpikul, Vejbaesy	29	+	+	+	+	+	+	+	+	+	+	+	+	+								LMX
Pule, Ziningi	10	+																	+		DR1	LMX
Reed, Elaine F. PhD		+	+	+	+	+	+	+	+	+	+	+	+		+							LMX
Sacchi, Nicoletta		+	+	+	+	+	+	+	+	+			+					+			DR8,DQ2	LMX
V.Brouard, M.Tonye	71	+	+	+	+	+	+	+	+	+	+	+	+		+						DQA1*03,DQA1*05,DQA1*06	LMX
Vather/JHB,		+	+	+	+	+	+	+	+	+	+	+	+				+	+		+	DPA1*04,DQA1*03,DQA1*05,DQA1*06	LMX
Vather/Pinetown,		+	+	+	+	+	+	+	+	+	+	+	+				+			+	DPA1*04,DQA1*03,DQA1*05,DQA1*06	LMX
Xu, Ri	12	+	+	+	+	+	+	+	+		+			+					+		DQ3	LMX