CELL EXCHANGE #398
MAY 3, 2017

Cells 1589-1592

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.

NEXT MAILING DATE: August 9, 2017

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

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

		Low Resolution						High Resolution							
Center	**Investigator**	**HLA-A**		**HLA-B**		**HLA-C**		**HLA-A**		**HLA-B**		**HLA-C**		**Method**	**Other Alleles**
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

		Low Resolution						High Resolution							
Center	**Investigator**	**HLA-A**		**HLA-B**		**HLA-C**		**HLA-A**		**HLA-B**		**HLA-C**		**Method**	**Other Alleles**
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

		Low Resolution						High Resolution							
Center	**Investigator**	**HLA-A**		**HLA-B**		**HLA-C**		**HLA-A**		**HLA-B**		**HLA-C**		**Method**	**Other Alleles**
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

		Low Resolution						High Resolution							
Center	**Investigator**	**HLA-A**		**HLA-B**		**HLA-C**		**HLA-A**		**HLA-B**		**HLA-C**		**Method**	**Other Alleles**
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

		Cell No 1589 (Chinese)										Cell No 1590 (Asian)								Cell No 1591 (Asian)								Cell No 1592 (Chinese)							
Investigator	Days Old	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	+	+	+			+		>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	+	+	+			+		99	+		+			+	B62, A74	99	+	+	+	+		+	
Hogan, Patric	14	90	+		+	+	+	+	+	+		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	A203	+	+			+		80	+	A11.1	+	+		+	
Pule, Ziningi		80	+		+	B62	+				B70,B73	80	A19	B15	+	+			A34, B37	80	+	B45	B15		+		B55,Cw3	80	+	+	+		+		B70,Cw3
Rees, Tracey		90	+	+	+	+	+	+	+	+		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	+	+	+	+	+	+		100	+	+	+	+	+	+	
Watson, Narel	16	95	+		+	B15			+	+		93	+		+			+		95	+	B22	B15			+		90	+		B15			+	
Zhang, Aiwen	2	95	+		+	+						95	+	B15	+	+				95	+		B15	+				95	+	+	B15		+		