REPORT OF THE 348th CELL EXCHANGE

APRIL 7, 2010

B-Cell Line	435-436
DNA Extract	477-480
Cells	1389-1392

Notice about the new changes to the HLA nomenclature:

As many of you are aware, the new HLA nomenclature with colon delimited HLA allele names was officially introduced at the beginning of this month, as published in the latest report of the WHO Nomenclature Committee for Factors of the HLA System, 2010 (1), and implemented with the April 2010 release of the IMGT/HLA Database. To accommodate the increasing number of new HLA alleles, the decision was made by the committee to use colons within the allele names to act as delimiters. The report provides examples of how the new nomenclature will change an allele name:

A*01010101	becomes	A*01:01:01:01
A*02010102L	becomes	A*02:01:01:02L
A*260101	becomes	A*26:01:01
A*3301	becomes	A*33:01
B*0808N	becomes	B*08:08N
DRB1*01010101	becomes	DRB1*01:01:01:01

The new nomenclature will allow those existing allele families with over 100 alleles, such A*02 and B*15, to be renamed into single series:

A*9201	becomes	A*02:101
A*9202	becomes	A*02:102
A*9203	becomes	A*02:103 etc
B*9501	becomes	B*15:101
B*9502	becomes	B*15:102
B*9503	becomes	B*15:103 etc

The report further explains, "The names A*02:100 and B*15:100 will not be assigned. In cases of other allele families where the number of alleles reaches 100, these will be numbered sequentially, for example A*24:99 will be followed by A*24:100."

More new changes include DPB1 allele names:

DPB1*0102	becomes	DPB1*100:01
DPB1*0203	becomes	DPB1*101:01
DPB1*0302	becomes	DPB1*102:01
DPB1*0403	becomes	DPB1*103:01
DPB1*0502	becomes	DPB1*104:02 etc

and C-locus allele names will no longer have the "w":

Cw*0103	becomes	C*01:03
Cw*020201	becomes	C*02:02:01
Cw*07020101	becomes	C*07:02:01:01 etc

The full lists of old and new allele names are available in the nomenclature report in the current issue of Tissue Antigens, on the IMGT/HLA Database web site, www.ebi.ac.uk/imgt/hla, and at http://hla.alleles.org.

Our Cell Exchange reports will transition to the exclusive use of the new nomenclature by the end of this year; at this time, you may continue to use the old nomenclature, if needed. However, we encourage you to familiarize yourself with the new nomenclature. You will need to use the new nomenclature to search in the IMGT/HLA Database.

B-cell line Exchange
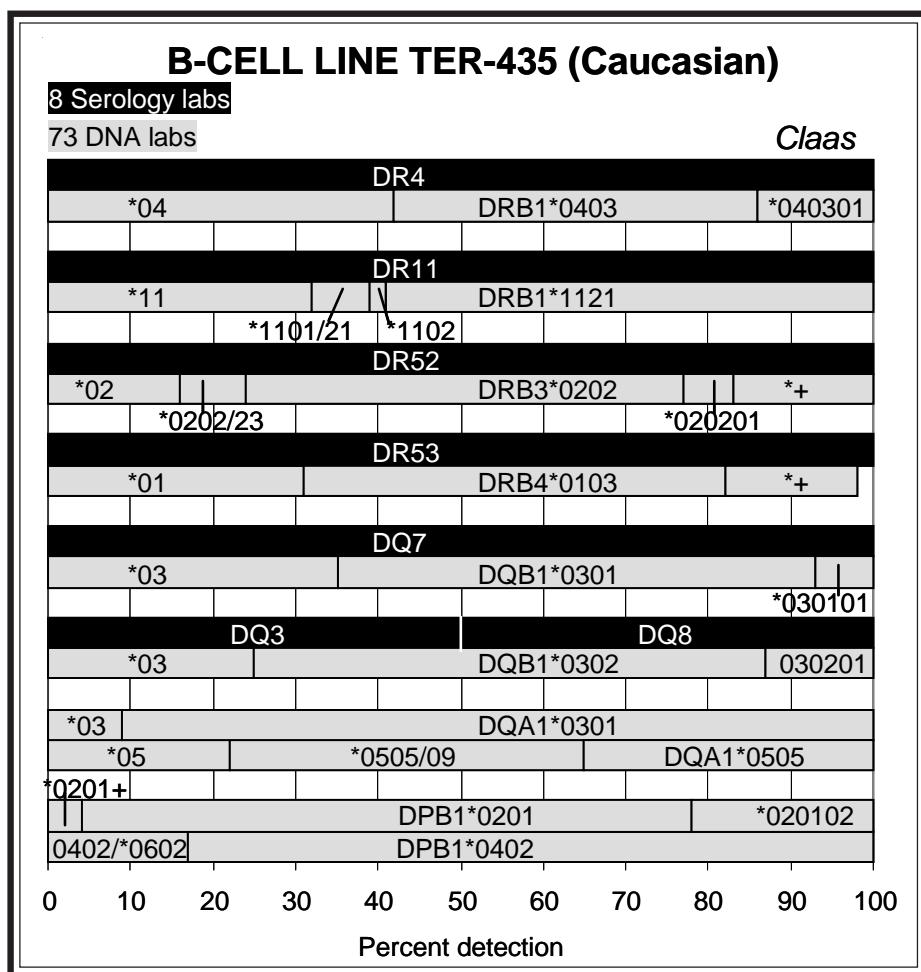
B-CELL LINE TER-435 (Caucasian)

8 Serology labs

73 DNA labs

Claas

DR4			
*04	DRB1*0403	*040301	
DR11			
*11	DRB1*1121		
*1101/21	*1102		
DR52			
*02	DRB3*0202	*+	
*0202/23	*020201		
DR53			
*01	DRB4*0103	*+	
DQ7			
*03	DQB1*0301		
	*030101		
DQ3	**DQ8**		
*03	DQB1*0302	030201	
*03	DQA1*0301		
*05	*0505/09	DQA1*0505	
*0201+			
	DPB1*0201	*020102	
0402/*0602	DPB1*0402		

0 10 20 30 40 50 60 70 80 90 100

Percent detection

This month's exchange offered two rare DRB1*11 alleles to study.

TER-435. This Caucasian cell was MUL (2), a reference cell for the rare DRB1*1121. The cell is also known as TER350 and TER110. This cell was previously typed in the Cell Exchange as TER-251 (1999) and TER-350 (2004) for class II, as correctly identified by Abbal, Barnardo, Hahn, Hanau, Lopez-Cepero, Mah, and Stamm. It was also typed as extract 110 for class I in 1999. MUL remains the sole DRB1*1121 cell typed in the Cell Exchange.

In this present retyping, DRB1*1121 (59%) was reported by over half of the labs. Seven percent assigned DRB1*1102/21 and 2 labs misassigned DRB1*1102. Verduyn et al. (2) described DRB1*1121 as being most similar to DRB1*1102, except in exon 2, at codon 85, GTT->GCT, resulting into an amino acid change of valine to alanine.

DR11 was assigned in complete consensus.

DRB1*0403 was detected by 58%; DR4 was assigned by 100%.

The likely associations were DRB1*0403-DRB4*0103-DQB1*0302-DQA1*0301 and DRB1*1121-DRB3*0202-DQB1*0301-DQA1*0505.

DPB1*0201 (96%) and DPB1*0402 (83%) were present in this cell.

The results for this donor when typed as extract 110 indicated A*0201, A*0301, B*1503, B*3503, Cw*0401, Cw*1203. The B*1503-Cw*1203 association was detected, not the more commonly found B*1503-Cw*0202.

TER-436. Another rare DR11 allele, DRB1*1113 (78%), was present in this cell from a Caucasian donor. Five labs (Clark, Hahn, Lopez-Cepero, Mah, Stamm) were correct in identifying this cell being previously typed as TER-327 in 2003. This cell, TER327, also serves as a reference for DRB1*1113.

This DR11 allele has a DR11-DR14 hybrid sequence, and therefore, can be described as a DRB1*1101 variant with some DRB1*1401 sequence or as a DRB1*14 allele with some DRB1*11 sequence (3-6). In the initial 2003 typing, the DRB1*1113 allele was detected by 74% and DRB1*14 was misassigned by 7%. Another DRB1*1113 cell was typed as TER-363 in 2005, attaining the detection level of 78%, and DRB1*14 was misassigned by 5%. In this present retyping, the reporting of DRB1*11/*14 and DRB1*14 decreased to 3%, thus, the standardization of typing for DRB1*1113 has improved since its initial typing in the Cell Exchange.

DR11 was assigned by 88% in this retyping. Investigators (3-5) observed that this variant may be typed serologically as either DR11 or DR14.

The other DRB1 allele was DRB1*0301, as assigned by 63%. DR17 was reported by 88%.

The DPB1 types in this cell were DPB1*0202 (91%) and DPB1*0401 (73%). DPB1*0401 was not conclusively resolved from DPB1*2302N by 18%.

The probable haplotypes in this cell were DRB1*0301-DRB3*0202-DQB1*0201-DQA1*0501 and DRB1*1113-DRB3*0202-DQB1*0503 (*050301)-DQA1*0104. In the previous report for this cell, Lefor commented upon finding a local DRB1*1113 cell associated with DQB1*0503 cell from a Caucasian individual. The same DRB1*1113-DQB1*0503 was also found in TER-363. Interestingly, DRB1*14 alleles are commonly found in association with DQB1*0503 whereas DRB1*11 alleles are more commonly found in ssociation with DQB1*0301.

B-CELL LINE TER-436 (Caucasian)

9 Serology labs

74 DNA labs

Bass, Rowlands, and Rees

DR3 | DR17
*03 | DRB1*0301 | *030101

DR11
*11 | DRB1*1113

DR52
*02 | DRB3*0202 | *+

DQ2
*02 | DQB1*0201

DQ1 | DQ5 | DQ6
*05 | DQB1*0503 | *050301
| | *010401
*01 | *0101/04/05 | DQA1*0104
| DQA1*0501
*05 *0202+ | *050101
| DPB1*0202
*0401+ | DPB1*0401 | *040101

0 10 20 30 40 50 60 70 80 90 100
Percent detection
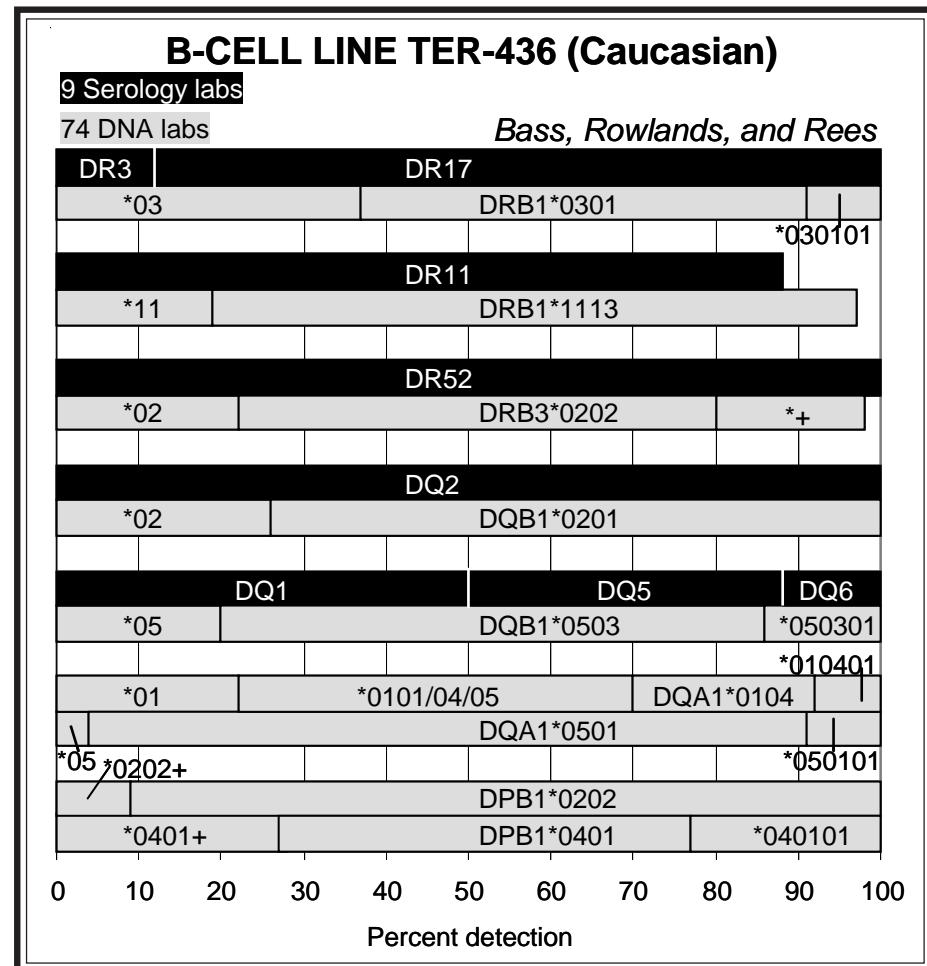
Extract Exchange

We are grateful for the generous collaboration of **Eric Mickelson** and **John Hansen, Fred Hutchinson Cancer Research Center, Seattle**, and **Fu-Meei Robbins, National Institutes of Health, Bethesda**, in providing interesting cells to type in the exchange studies.

EXTRACT 477 (Caucasian)

52 labs

Allele	Percent detection	Subtype	
A*02		A*0201	*020101
A*29		A*2902	*290201
B*27		B*2709	
B*44		B*4403	*440301
Cw*01	*0102/25	Cw*0102	*010201
Cw*16		Cw*1601	*160101

Percent detection: 0 10 20 30 40 50 60 70 80 90 100

EXTRACT 478 (Japanese)

52 labs

Allele	Percent detection	Subtype	
A*02	*0206/*9226	A*0206	*020601
A*24		A*2402	*240201
B*07	*0702/61	B*0702	
B*51		B*5103	
Cw*07	*0702/50	Cw*0702	
Cw*14		Cw*1402	*140201

Percent detection: 0 10 20 30 40 50 60 70 80 90 100

Extract 477. This Caucasian individual with the rare B*2709 was typed in recent workshops as IHW#9377. The cell was previously typed as extract 145 (2000), as noted by Brown, Moses and Dunckley, and Stamm. Another B*2709 cell was typed in 2004 as cell 1190, also from a Caucasian donor, in the Cell Exchange.

In this present retyping, B*2709 was assigned by 60%. Ten years ago, only 18% of the 60 labs detected the B*27 subtype in this same cell. In addition, no other subtype was reported in this retyping whereas in the initial typing, B*2701, B*2705, and B*2711 were assigned.

The second B-locus allele was B*4403 (58%).

The A-locus alleles were A*0201 (44%) and A*2902 (48%).

The C-locus types were Cw*0102 (45%) and Cw*1601 (57%).

B*4403-Cw*1601 and B*2709-Cw*0102 were the probable associations. Both reference cells B27-ci and NT00775 were listed as having A2-B27-Cw1. The likely haplotypes in this cell were A*0201-B*2709-Cw*0102, same as found in cell 1190, and A*2902-B*4403-Cw*1601, a commonly found haplotype in all ethnic groups, except in Asians.

Extract 478. This cell from a Japanese donor was a workshop cell, IHW#9370, as correctly identified by Moses and Dunckley, and provided the labs an opportunity to type B*5103. It was previously studied as extracts 149 (2000) and 198 (2002).

In this present retyping, B*5103 was detected by 52%, increasing over the 31% and 22% detection levels in the previous 2000 and 2002 typings,

respectively. B*5103 differs from B*5101 by only one substitution in exon 3, at codon 167 (TGG->GGG), resulting in a change of tryptophan to glycine (7). Kawaguchi et al. further described that serology could distinguish the product from this variant with the one amino acid substitution from the normal B51.

B*0702 was also present, as reported by 23%.

A*0206 (42%) and A*2402 (44%) were the A-locus types.

EXTRACT 479 (Caucasian)

52 labs

EXTRACT 479 (Caucasian)

Allele			
A*29	A*2902	*290201	
A*30	A*3002	*300201	
B*14	B*1402	140201	
B*37	B*3702		
Cw*02	Cw*0202	*020202	
Cw*08	Cw*0802		

Percent detection: 0 10 20 30 40 50 60 70 80 90 100

The C-locus alleles were Cw*0702 (27%) and Cw*1402 (51%).

Haplotype data from the NMDP web site, bioinformatics.nmdp.org, indicated that A*2402g-B*0702g-Cw*0702 (HF=.01062) is frequently found in Asian populations; therefore, A*2402-B*0702-Cw*0702 and A*0206-B*5103-Cw*1402 may be present in this donor.
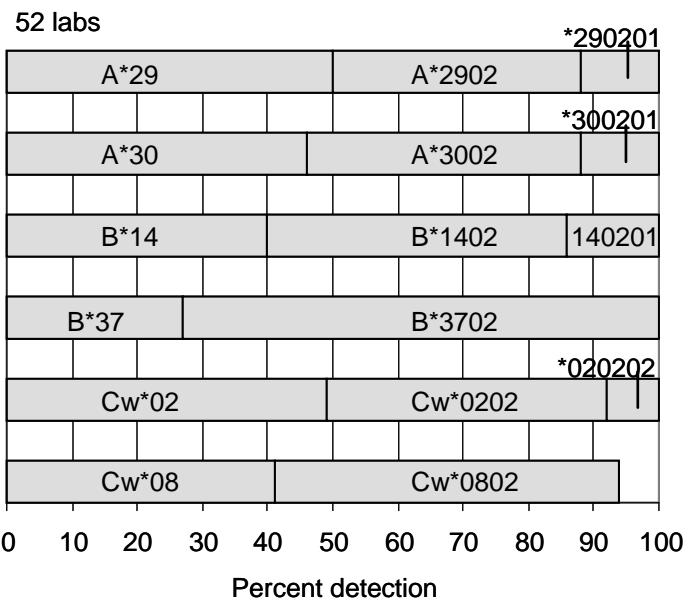
Extract 479. The unusual and rare B*3702 was typed for the first time in the Cell Exchange in this Caucasian cell. Santos et al. (8) described this variant in a Syrian family as a hybrid between B37 and B27, that is, "B*3702 is identical in exon 2 to B*3701…Exons 3 to 8 are identical between B*3702 and a number of HLA-B27 subtypes (all except Oriental HLA-B27 subtypes B*2704, B*2706, and B*2707." The investigators observed that cells from the 2 family members with the novel B*37 allele had inconsistent reactivity against B37 antisera and weak reactivity with anti-B27 allosera. The results listed in 2008 HLA Dictionary (9) also indicated that this product would not react as a normal B37:

Expert assigned: B37/B27
NMDP - 6 cells
   Assigned type (%): B27 (33), blank (33), B37 (17), B47 (17)
Neural network (NN): Not assigned
Comments: B37x27 or blank, few B37 and few B27 sera reactive; NN:B37

B*3702 was detected by 73% of the labs.

The second B-locus allele, B*1402, was assigned by 60%.

Since B*1402 is found in strong association with Cw*0802 in all ethnic groups except Asians, the likely associations in this cell were B*1402-Cw*0802 and B*3702-Cw*0202.

EXTRACT 480 (Korean)

52 labs

*290201
A*29 | A*2902
*680101
A*68 | A*6801
B*27 | *2705/13 | B*2705
*440301
B*44 | B*4403
*0202/27 | *020202
Cw*02 | Cw*0202
*1601/02 | *160101
Cw*16 | Cw*1601

0 10 20 30 40 50 60 70 80 90 100

Percent detection
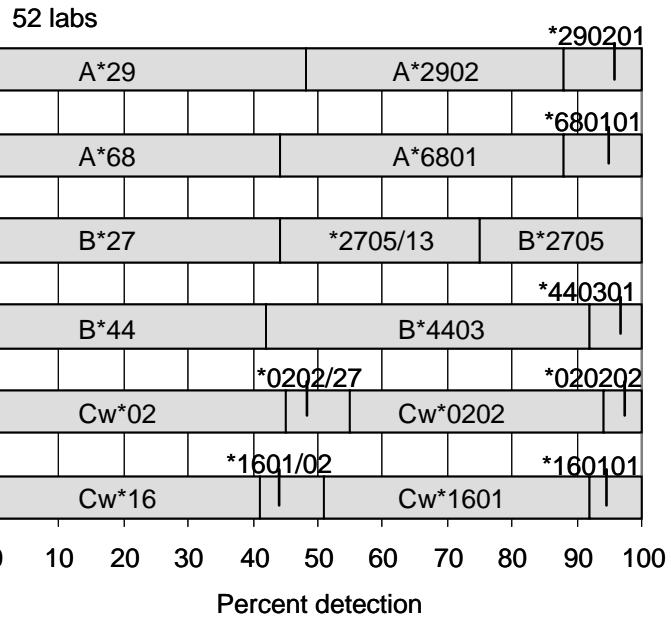
Extract 480. This Korean cell was previously typed in the Cell Exchange for class II as TER-364 (2005), having the rare DRB1*1114. The class I typing was also included in the final report as A*2902, A*680101, B*270504, B*440301, Cw*020202, Cw*1601, as was provided to us. However, Dawn Wagenknecht, St. Francis Hospital, Beech Grove, recently notified us that the cell did not typed as B*270504 when used as a control to confirm results of a patient; instead, SSP revealed the B-locus alleles for this cell as B*440301, B*270502.

In this present study, the results from 52 labs indicated the high-resolution class I for this cell was A*2902, A*6801, B*2705, B*4403, Cw*0202, Cw*1601. The probable haplotypes were A*2902-B*4403-Cw*1601 and A*6801-B*2705-Cw*0202.

The high-resolution class II typing for this cell was DRB1*0701, DRB1*1114, DRB3*0202, DRB4*0101, DQB1*0202, DQB1*0301, DQA1*0201, DQA1*0505.

Cell Exchange

Cell 1389. B81 was detected by 88% in this cell from a Black individual and was confirmed as B*8101 (36%).

The other B-locus type was B14 (98%), with 57% assigning B65, verified as B*1402 (49%).

The 2 A19 specificities, A30 (96%) and A74 (93%), were corroborated as A*3002 (45%) and A*7401 (36%), respectively.

Cw8 was typed by 52%. Two different Cw*08 alleles, Cw*0802 (46%) and Cw*0804 (41%), were present.

The probable associations were B14-Cw8 and B81-Cw8, that is, B*1402-Cw*0802 and B*8101-Cw*0804. B*8101 is usually found in association with either Cw*18 or Cw*0804.

CELL 1389 (Black)

55 Serology labs
46 DNA labs

A30		
A*30	A*3002	*300201
A31		
A74		
A*74	A*7401	
*7401/02		
B14	B65	
B*14	*1402/09	B*1402	*140201
B7		
B81		
B*81	B*8101	
Cw8		
Cw*08	Cw*0802	*080201
Cw*08	*0804/13	Cw*0804

0 10 20 30 40 50 60 70 80 90 100

Percent detection

7

CELL 1390 (Hispanic)

55 Serology labs
46 DNA labs

Chart (Percent detection, 0–100):
- A3 / A*03 / A*0301 / *030101
- A24 / A*24 / A*2402 / *240201
- B7 / B*07 / B*0702 / *070201
- B38 / B*38 / B*3801 / *380101
- Cw7 / Cw*07 / Cw*0702 / *0702/50
- Cw*12 / Cw*1203 / 120301
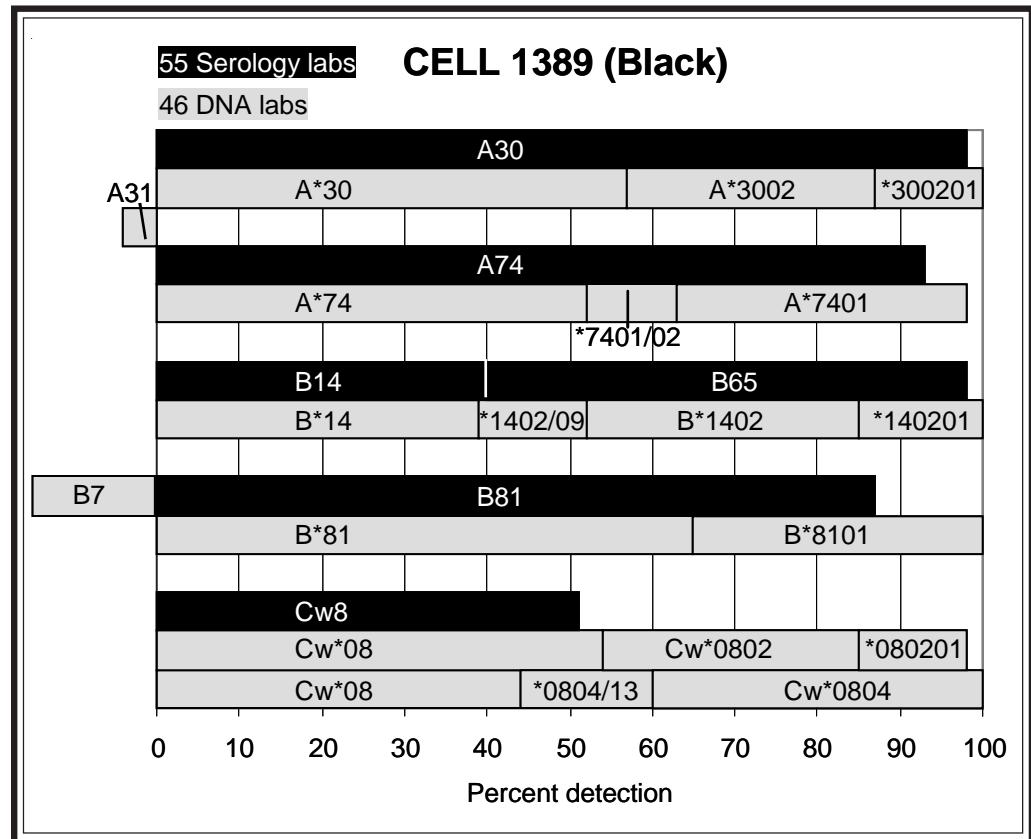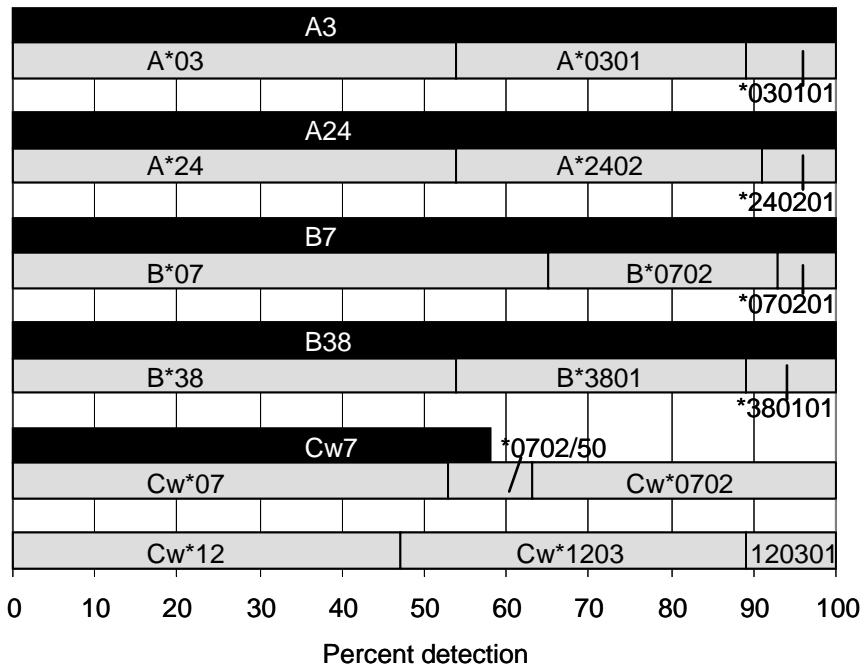
Cell 1390. This Hispanic cell was well typed as A3, A24, B7, B38, Cw7 and high-resolution typing results revealed A*0301, A*2402, B*0702, B*3801, Cw*0702, Cw*1203.

The probable haplotypes were A*0301-B*0702-Cw*0702 and A*2402-B*3801-Cw*1203. According to the NMDP Bioinformatics web site, A*0301g-B*0702g-Cw*0702 (HF=0.02408) was the third highest ranking haplotype in Hispanics and A*2402g-B*3801-Cw*1203 had HF=0.00258.

Cell 1391. Although there was no question that B17 was present in this Black cell, with the majority of the labs assigning B57 (84%), it was more difficult to serologically assert that B58 (38%) was also present, as a number of labs suspected. The B-locus assignments were:

antigens	# labs	of 56 reporting labs
B57, B58	20	36%
B57, -	18	32%
B17	8	14%
B57, B17	6	11%
B57, B63	3	5%
B58, B63	1	2%

Dunk commented that B58 is found in strong linkage disequilibrium with A6602 and Kondo noted the common haplotype linkage of A6602-B58-Cw7. The presence of both B17 antigens were confirmed by DNA results as B*5703 (52%) and B*5801 (50%).

A66 was reported by 82%, with 29% assigning A6602. A*6602 was assigned by 74%.

Cw7 was assigned by 59%. Cw*07 reached 100% consensus, with Cw*0718 assigned by 29% and Cw*0701 by 7%. However, it was not resolved from the final results whether one or two different Cw*07 alleles were present:

allele assignments	# labs	of 44 reporting labs
Cw*0718, -	4	9%
Cw*0701, *0718	4	9%
Cw*0701, -	3	7%
Cw*0718, *0701/18	3	7%
Cw*0718, *07	2	4%
Cw*0701, *0701/18	1	2%

CELL 1391 (Black)
55 Serology labs
45 DNA labs
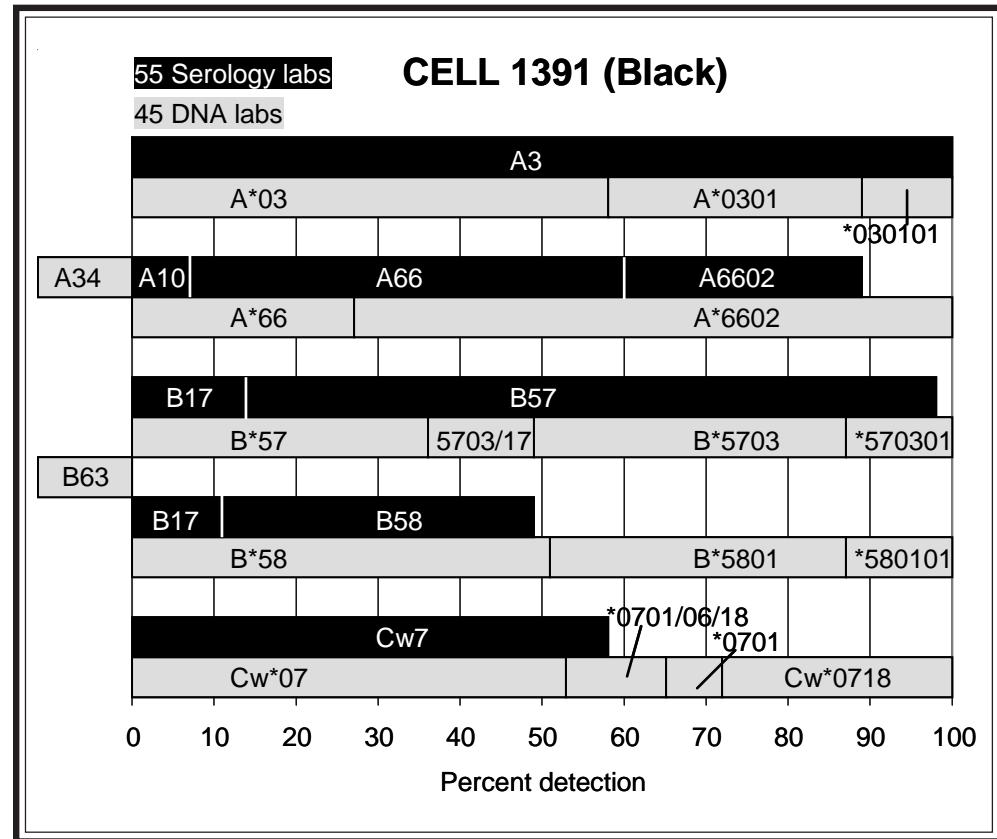
Delfino et al. (10) described, "Cw*0718 differs from the Cw*070101 allele by a unique nucleotide position within exon 6, resulting in an amino acid substitution at codon 324 (Ala->Val) in the cytoplasmic region of the molecule."

The likely associations in this cell were A*0301-B*5703-Cw*07 and A*6602-B*5801-Cw*07. We plan to study this provocative cell again in the near future.

CELL 1392 (Hispanic)

54 Serology labs
44 DNA labs
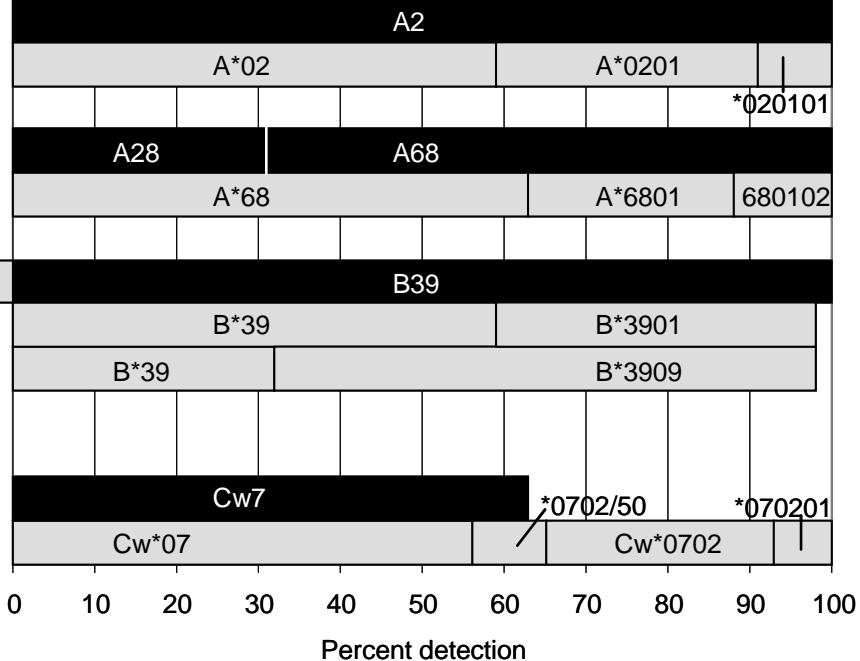
Cell 1392. This cell from an Hispanic individual was previously typed in the Cell Exchange, as cells 1270 (2006), 1300 (2007), and 1342 (2008).

In the present retyping, B39 was assigned in complete consensus, with both B*3901 (40%) and B*3909 (67%) reported by DNA. Assignments of B14 (11%) and B64 (4%) were likely due to the B39 homozygosity.

A2 (100%) and A68 (69%) were reaffirmed as A*0201 (42%) and A*6801 (38%), respectively.

Cw7 (64%) was verified as Cw*0702 (37%) as the sole C-locus type.

10

References

1. Marsh SGE, Albert ED, Bodmer WF, et al. Nomenclature for factors of the HLA system, 2010. Tissue Antigens 2010;75:291.

2. Verduyn W, Anholts JD, Versluis LF, et al. Six newly identified HLA-DRB alleles: DRB1*1121, 1419, 1420, 1421, DRB3*0203 and DRB5*0103. Tissue Antigens 1996;48:80.

3. Rosenberg SM, Wollenzien TF, Johnson MM, et al. A description of a new DR allele, DRB1*1113. Tissue Antigens 1995;45:125.

4. Anholts JD, Verduyn W, Parlevliet, et al. Irregular polymerase chain reaction-sequence-specific oligonucleotide hybridization patterns reveal seven new HLA-DRB1 alleles related to DR2, DR3, DR6, DR8, and DR 11. Implications for sequence-specific priming. Hum Immunol 1995;42:15.

5. Hashemi S, Couture C, Buyse I, et al. Sequence analysis of three novel DR alleles: DRB1*1113, DRB1*1114 and DRB1*12032. Tissue Antigens 1996;47:155.

6. Smith AG, Nelson JL, Regen L, et al. Six new DR52-associated alleles, three of DR8, two of DR11, and one of DR6, reflect a variety of mechanisms which generate polymorphism in the MHC. Tissue Antigens 1996;48:118.

7. Kawaguchi G, Nakayama T, Nagao M, and Takiguchi M. A single amino acid substitution at residue 167 forms a novel HLA-B51 subtype. Tissue Antigens 1993;42:39.

8. Santos S, Vicario JL, Merino JL, and Balas A. Characterization of a new HLA-B allele (B*3702) generated by an intronic recombinant event. Immunogen 1996;43:171.

9. Holdsworth R, Hurley CK, Marsh SGE, et al. The HLA dictionary 2008: a summary of HLA-A, -B, -C, -DRB1/3/4/5, and -DQB1 alleles and their association with serologically defined HLA-A, -B, -C, DR, and -DQ antigens. Tissue Antigens 2009;73:95.

10. Delfino L, Morabito A, and Ferrara GB. HLA-A sequence based typing: nucleotide analysis from exon 1 through exon 8. Identification of a new allele: Cw*0718. Tissue Antigens 2003;62:418.

NEXT MAILING DATE: May 5, 2010
Marie Lau, Arlene Locke, J. Michael Cecka, and Elaine F. Reed

```
                    ****************************
                    *                          *
                    *   PARTICIPATING CENTERS  *
                    *                          *
                    ****************************
```

NAME	CITY STATE/COUNTRY	NAME	CITY STATE/COUNTRY	NAME	CITY STATE/COUNTRY
(W.H.O. LABS)		Gomez,Carmen	Miami FL	Olerup,Olle	Saltsjobaden
Fischer & Mayr,Drs	Vienna	Graff,Dr Ralph J.	St Louis MO	Ozawa,Mikki	Los Angeles CA
		Hahn PhD,Amy B.	Albany NY	Padua MD,Florecita R	Quezon City
Abbal,Prof Michel	Toulouse Cedex	Hajeer,Dr Ali	Riyadh	Pais,Dr Maria Luisa	Coimbra
Adams,Sharon	Bethesda MD	Hamdi,Dr Nuha	Riyadh	Park MD,Myoung Hee	Seoul
Al-Attas,Dr Rabab	Damman-East Pr	Han,Dr Hoon	Seoul	Park,Yun Mi	Seoul
Alonso,Antonio	Malaga	Hanau,Prof Daniel	Strasbourg	Passey,Ben	Liverpool
Alvarez & Carrett,Dr	Montevideo	Harville,Dr Terry	Little Rock AR	Pereira,Noemi Farah	Curitiba Paran
Anthony Nolan Trust	London England	Hidajat,Dr M.	Brugge	Permpikul & Vejbaesy	Bangkok
Baker,Judy	Dallas TX	Hirankarn MD PhD,Nat	Bangkok	Phelan,Donna	St Louis MO
Barnardo,Dr Martin	Oxford England	Hogan,Dr Patrick	Herston QLD	Pidwell/Askar,	Cleveland OH
Baxter-Lowe,Dr Lee A	San Francisco CA	Holdsworth,Rhonda	South Melbourn	Pollack PhD,Marilyn	San Antonio TX
Berka PhD,Noureddine	Washington DC	Hsu PhD,Susan H.	Philadelphia PA	Ray & Balazs,	Stamford CT
Blaszyk,Prof Rainer	Hannover	Hubbell,Charlene	Syracuse NY	Reed PhD,Elaine F.	Los Angeles CA
Brown,Dr Colin	London England	Hurley & Hartzma,Drs	Rockville MD	Reed PhD,Elaine F.	Los Angeles CA
Carrington & Martin,	Frederick MD	Ichikawa MD PhD,Yasu	Nishinomiya,Hy	Rees,Dr Tracey	Pontyclun Wale
Cecka PhD,J.Michael	Honolulu HI	Israel,Dr Shoshana	Jerusalem	Reinke MD,Dennis	Bismarck ND
Cecka PhD,Michael	Los Angeles CA	Israel_LR,	Jerusalem	Reinsmoen PhD,Nancy	Los Angeles CA
Chan MD,Prof Soh Ha	Singapore	Jaramillo PhD,Andres	Itasca IL	Roberts,Chrissy H.	London England
Charlton PhD,Ronald	Jacksonville FL	Kamoun MD,Malek	Philadelphia PA	Rosen-Bronson PhD,Sa	Washington DC
Charron,Prof D.	Paris Cedex 10	Kato MD,Shunichi	Isehara,Kanaga	Rost & Klein,Drs	Martinsried
Chen,Dr Dong-Feng	Durham NC	Keown MD,Paul	Vancouver BC	Rubocki PhD,Ronald	Scarborough ME
Choo MD,Yoon	Valhalla NY	Kihara,Masaaki	Tokyo	Sage,Dr Deborah	London England
Christiansen & Wit,	Perth - West A	Kim,Prof Tai-Gyu	Seoul	Sauer & Gottwald,	Lich
Claas,Prof F.H.J.	Leiden	Klein MD,Jon	Louisville KY	Schroeder MD,M.L.	Winnipeg MB
Clark,Dr Brendan	Leeds England	Klein,Dr Tirza	Petach Tikva	Scornik,Dr Juan C.	Gainesville FL
Cohen,Prof JHM	Reims Cedex	Klein_LR,	Petach Tikva	Semana MD PhD,Gilber	Rennes
Colombe PhD,Beth W.	Philadelphia PA	Kotsch PhD,Katja	Berlin	Senitzer PhD,David	Duarte CA
Costeas,Dr Paul A.	Nicosia	KuKuruga PhD,Debra	Baltimore MD	Shai,Isaac	Medunsa
Crowe PhD,Deborah	Nashville TN	Kusnierczyk PhD,Piot	Wroclaw	Sheikh PhD,Maqsood	New Providence NJ
Daniel PhD,Claude	Laval PQ	Kvam,Vonnett	Waukesha WI	Sinnott & Gupta,	London
Daniel,Dr Dolly	Tamil Nadu	Land,Dr Geoffrey A.	Houston TX	Smith/MI,	Ann Arbor MI
Davidson & Poulton,D	Manchester, En	Lanzer,Prof G.	Graz	Sperry PhD,Roxanne	Phoenix AZ
del Pozo,Dr Ana	Buenos Aires	Lardy,Dr N.M.	Amsterdam	Stamm,Luz	Calgary AB
Dhaliwal,Dr J.S.	Kuala Lumpur	Lee PhD,Kyung Wha	Anyang,Kyungki	Stastny MD,Peter	Dallas TX
Dinauer,David	Brown Deer WI	Lee,Dr Jar-How	Canoga Park CA	Stavropoulos,Maria	New Haven CT
Du PhD,Keming	Shanghai	Leech MD,Dr Stephen	Philadelphia PA	Suciu-Foca PhD,Nicol	New York NY
Dunckley PhD,Heather	Sydney NSW	Lim MD,Young Ae	Suwon	Sullivan PhD,Karen	New Orleans LA
Dunk,Arthur	Lauderhill FL	Linke,Robert	Stamford CT	Tagliere,Jacque	Los Angeles CA
Dunn,Dr Dale	Lubbock TX	Lo MD,Raymundo W.	Quezon City	Tambur,Anat	Chicago IL
Dunn,Dr Paul	Auckland	Loewenthal MD PhD,Ro	Tel-Hashomer	Tavoularis,Dr Sofia	Ottawa ON
Dupont MD,Bo	New York NY	Lopez-Cepero PhD,May	Tampa FL	Thoni MD,Deborah	Orlando FL
Eckels/CPMC,	San Francisco CA	MacCann,Eileen	Providence RI	Tiercy,Dr Jean-Marie	Geneva 14
Eckels/Utah,	Salt Lake City UT	Madrigal,Prof J.A.	London England	Tilanus,Prof Marcel	Maastricht
Elkhalifa MD PhD,Moh	Riyadh	Mah,Helen	Boston MA	Trachtenberg PhD,Eli	Oakland CA
Ellis PhD,Thomas	Milwaukee WI	Mani,Dr Rama	Chennai,Tamil	Trowsdale,Prof John	Cambridge
Endres,Dr Robert O.	Tempe AZ	Marino,Susana R.	Chicago IL	Turner PhD,E.V.	Memphis TN
Esteves Kondo,Debra	Canoga Park CA	Marsh,Prof Steven	London England	Tyan,Dr Dolly	Palo Alto CA
Esteves-Kondo,Debra	Canoga Park CA	Masuo,Kiyoe	Tokyo	Uhrberg,Dr Markus	Dusseldorf
Fagoaga,Dr Omar	Detroit MI	McAlack PhD,Robert	Philadelphia PA	Varnavidou-Nico,Dr A	Nicosia
Fernandez-Vina & Can	Houston TX	McAlack-Balasub,	Philadelphia PA	Vidan-Jeras,Blanka	Ljubljana
Fischer,Dr Johannes	Dusseldorf	McCluskey,Prof James	Adelaide	Vilches,Dr Carlos	Madrid
		McIntyre PhD,John A.	Beech Grove IN	Walter Reed Army Med	Washington DC

Gandhi & Genco,Drs	Rochester	MN	Merenmies MD PhD,Jus	Helsinki		Wassmuth,Prof Ralf	Dresden	
Gardiner PhD,Clair M	Dublin		Meyer,Pieter Wa	Pretoria, Gaut		Watkins PhD,David I.	Madison	WI
Gautreaux,Dr Michael	Winston-Salem	NC	Muncher,Dr Liora	Rehovot		Wisecarver PhD,James	Omaha	NE
Gideoni,Osnat	Haifa		Muncher_LR,	Rehovot		Yu,Dr Neng	Dedham	MA
Gideoni_LR,	Haifa		Mytilineos MD,Joanni	Ulm		Yu_Neng/UMMHC,	Worcester	MA
Gillespie,Dr Kathlee	Bristol		Nelson PhD,Karen	Seattle	WA	Zachary PhD,Andrea	Baltimore	MD
Gladman/Pellet,Polla	Toronto	ON	Noreen,Harriet	Minneapolis	MN	Zeevi PhD,Adriana	Pittsburgh	PA
Gomez,Carmen	Miami	FL	Norin,Dr Allen	Brooklyn	NY			

B-CELL LINE TER-435

CTR	DIRNAME	DRB1	DRB1X	DRB3	DRB4	DQB1	DQB1X	DQA1	DQA1X	DPB1	DPB1X	METHOD
4079	Abbal,Michel	*0403	*1121			*0301	*0302					RVSSO,P-SSP
5488	Adams,Sharon	*040301//+	*1121//+	*0202	*01	*030101	*030201	*0301	*0505/10	*020102	*0402	RSSO,SSP,SBT
8062	Al-Attas,Rab	*04	*11			*03	*03					SSO
2020	Barnardo,Mar	*0403	*1121	*0202/05+	*0101-05+	*030101	*030201	*0301-03	*0505/08+	*020102	*0402	SBT,P-SSP
774	Cecka,J.Mich	*0403/60/71	*1121	*0202/23	*0103	*0301	*030201					SSP
785	Chan,Soh Ha	*0403/27	*1102/21	*020201	*010301	*03	*03	*0301-03	*0501/03+			SBT
4492	Charron,D.	*0403	*1121	*0202	*0103	*0301	*0302	*0301	*0505/09	*0201	*0402	P-SSO,SSP
3224	Chen,Dongfen	*0403	*1121	*0202	*0103	*0301	*0302	*0301	*0505/09			SBT,SSP,RSSO
8021	Clark,Brenda	*0403/27/52	*1102/21	*0107/*02	*01	*0301	*0302			*0201	*0402	P-SSP,SSO
3632	Colombe,Beth	*0403	*1121	*0202	*0103	*0301	*0302					SSP
5130	Costeas,Paul	*0403	*1121	*0202	*0103	*0301	*0302	*0301	*0505			SSO,SSP
779	Daniel,Claud	*04	*11	*01-*03	*01010101+	*03(DQ7)	*03(DQ8)					P-SSP
5219	Daniel,Dolly	*04	*11	*+	*+	*03	*03					P-SSOP
5323	Dhaliwal,J.S	*0403	*1121	*0202/23	*0301-04	*0301/04+	*0302/05+					P-SSP
5891	Du,Keming	*0403	*1121			*0301	*0302					
856	Dupont,Bo	*0403/39/51+	*1102/21/48+			*0301/19+	*0302/04					SSO
5214	Eckels/CPMC	*04	*11	*0202	*01	*03	*0302	*0301	*05	*0201	*0402	SSOP
3428	Eckels/Utah	*0403/27/52	*1102/21			*0301	*0302	*0301	*0505/09	*0201	*0402	SSOP
2332	Elkhalifa,Mo	NT											
4251	Ellis,Thomas	*0403	*1121	*0202/12	*0101/03+	*0301	*0302			*0201	*0402/*0602	P-SSO,SEQ
3135	Fischer,John	*0403	*1121	*0202	*0103	*0301	*0302			*0201	*0402	SBT,P-SSP
762	Fischer/Mayr	*0403	*1121	*0202	*0101/03+	*0301	*0302	*0301	*0505			RSSO,LBT,SSP+
792	Gandhi&Genco	*0403	*1121	*0202	*0103	*0301	*0302	*0301	*0505/08+			P-SSO,SSP
8043	Gideoni,Osna	*0403	*1121			*0301	*0302					SSP
9002	Gideoni_LR	*04	*11			*0301/04+	*0302/05+					SSO,SSP
234	Gomez,Carmen	*04	*11	*02	*01	*03	*03					SSP
5195	Gomez,Carmen	*04	*11	*0202	*01	*03	*0302					SSOP
910	Hahn,Amy B.	*0403/60/71	*1121	*0202/23	*0103	*0301/21+	*0302					SSP
4691	Hajeer,Ali	*04	*11			*03	*03					
810	Hamdi,Nuha	*040301	*110201			*030101	*030201					SSO
4269	Hanau,Daniel	*040301	*1121	*020201	*0103	*0301/24	*0302			*0201	*0402	P-SSP,SBT
1461	Hidajat,M.	*0403	*1121	*0202	*0103	*0301	*0302			*0201	*0402	SSO,SSP
2344	Hurley/Hartz	*040301	*1121			*030101+	*030201			*020102	*0402/*0602	SBT
771	Israel,Shosh	*0403	*1102			*0301	*0302					RVSSO,SSP
9003	Israel_LR	*04	*11			*02						SSO
748	Jaramillo,An	*04	*11	*+	*+	*03(DQ7)	*03(DQ8)					P-SSP
859	Kamoun,Malek	*0403	*1121	*0202	*0103	*0301	*0302	*0301	*0505/09			P-SSO,SSP
797	Kato,Shunich	*0403/27	*1102/21			*0301/09+	*0302					SSO,+SBT-DR
4337	Kim,Tai-Gyu	*0403	*1121			*0301	*0302			*0201	*0402	SBT
168	Klein,Tirza	*0403	*1121			*0301	*0302					P-SSO,SSP
9000	Klein_LR	*04	*11			*03	*03					P-SSO,SSP
87	Land,Geoffre	*0403	*1121	*0202	*0103	*0301	*0302	*0301	*0505	*0201	*0402	SSO,SSP,SBT
725	Lardy,N,M.	*04	*11	*+	*+	*03		*0301	*0505			SSO,SSP
278	Lee,Jar-How	*0403	*1121	*0202	*0103	*0301	*0302	*0301	*0505/09	*0201	*0402	RVSSOP,SSP
640	Lee,Kyung Wh	*0403	*1121			*0301	*0302	*030101	*0505			P-SBT
6649	Lim,Young Ae	*04	*11	*+	*+							P-SSP
731	Loewenthal,R	*040301	*1121			*0301/02	*03					SSO,SBT
759	Lopez-Cepero	*0403/27/50+	*1121/02/70			*0301	*0302	*0301	*0505/09	*0201+	*0402/*0602+	RVSSO
23	Mah,Helen	*0403	*1121	*0202	*01	*0301	*0302	*0301	*0505/09			SSO,SSP
8029	Mani,Rama	*04	*11	*+	*+							P-SSP
206	McAlack-Bala	*04	*11	*0202	*01	*0301	*0302					SSO
9916	McIntyre,Joh	*040301	*1121	*0202	*0103	*0301	*0302					SSP,SBT
794	Merenmies,Ju	*0403	*1121	*0202	*0103	*0301	*0302			*0201	*0402/*0602	SBT,SSO,SSP
8042	Muncher,Lior	*0403	*1121			*0301	*0302					SSP,SSOP
8065	Padua,Flore	*04	*11	*02	*01	*0301	*0302					SSP
5096	Park,Yun Mi	*04	*11									P-SSO
3648	Pereira,Noem	*040301	*1121			*030101	*030201					RVSSO,SBT

CTR	DIRNAME	DRB1	DRB1X	DRB3	DRB4	DQB1	DQB1X	DQA1	DQA1X	DPB1	DPB1X	METHOD
3966	Permpikul&Ve	*0403	*1121	*0202	*0103	*0301	*0302					P-SSP
2400	Phelan,Donna	*0403	*1121	*02	*01	*0301	*0302					RSSO,SBT,SSP
3753	Reed,Elaine	*0403/27	*1121/02	*0202	*0103	*0301	*0302	*0301	*0505/09			SBT,SSO,SSP
3798	Reinsmoen,N	*040301	*1121	*0202	*0103	*0301	*030201	*0301	*0505	*0201	*0402	SSP,SSO,SBT
1160	Rosen-Bronso	*04	*11	*02	*01	*03						RVSSO,SSP
793	Rubocki,Rona	*04	*11	*+	*+	*03(DQ7)	*03(DQ8)					P-SSP
3519	Semana,Gilbe	*0403	*1121	*0202	*0103	*0301	*0302			*0201	*0402	SBT,P-SSP
8001	Sheikh,Maqso	*0403/51/60+	*1121	*0202	*0103	*0301	*0302					RVSSOP,SSP
735	Smith/MI	*0403	*1121	*0202	*0101/03+	*0301/21+	*0302	*0301	*0505/09	*0201	*0402	SEQ,SSP,RSSO
746	Stamm,Luz	*0403	*1121	*02	*01	*0301	*0302					RSSO,SSP,SBT
13	Tagliere,Jac	*0403	*1121	*0202	*0103	*0301	*0302					SSP
747	Tiercy,Jean-	*040301	*1121	*0202	*0103	*0301	*030201			*020102	*0402	
5451	Tilanus,Marc	*040301	*1121	*020201	*01030101	*030101	*030201	*0301	*0505	*020102	*0402	SBT
4021	Trachtenberg	*04	*11	*02	*01/*0201N	*03	*03					RVSSOP
5462	Turner,E.V.	*040301	*1121	*0202/23	*0103	*0301	*0302	*0301	*0505/09	*0201	*0402	SEQ,SSO,SSP
5642	Varnavidou-N	*0403	*1121	*+	*+	*0301	*0302					P-SSP
3511	Zeevi,Adrian	*0403	*1121	*0202	*0103	*0301	*0302	*0301	*0505	*0201	*0402	SSP,RVSSOP

CTR	DIRNAME	DR4	DR11	DR52	DR53	DQ7	DQ3	OTH1	OTH2
4492	Charron,D.	NT							
234	Gomez,Carmen	+	+	+	+	+	DQ8		
5195	Gomez,Carmen	+	+	+	+	+	DQ8		
910	Hahn,Amy B.	+	+	+	+	+	+	DQ1	
4908	Kvam,Vonnett	+	+	+	+	+	+		
54	McAlack,Robe	+	+	+	+	+	DQ8		
8004	Pais,Maria L	+	+	+	+	+		DQ4	
793	Rubocki,Rona	+	+	+	+	+	+		
8063	Shai,Isaac	+	+	+	+	+	+	DR10	

```
B-CELL LINE TER-435 (Caucasian)
73 DNA LABS


73 LABS REPORTING DRB1                          71 LABS REPORTING DQB1
DRB1*04                 42%                      DQB1*03                 35%
    DRB1*0403           44%                          DQB1*0301           58%
    DRB1*040301         14%                          DQB1*030101          7%
DRB1*04                 100% TOTAL               DQB1*03                 100% TOTAL


DRB1*11                 32%                      DQB1*03                 25%
    DRB1*1102/21         7%                          DQB1*0302           62%
    DRB1*1102            1%                          DQB1*030201         13%
    DRB1*110201          1%                      DQB1*03                 100% TOTAL
    DRB1*1121           59%
DRB1*11                 100% TOTAL


51 LABS REPORTING DRB3                          23 LABS REPORTING DQA1
DRB3*+                  17%                      DQA1*03                  9%
DRB3*0202               53%                          DQA1*0301           87%
DRB3*020201              6%                          DQA1*030101          4%
    DRB3*02             16%                      DQA1*03                 100% TOTAL
    DRB3*0202/23         8%
                                                DQA1*05                 22%
51 LABS REPORTING DRB4                              DQA1*0505/09        43%
DRB4*+                  16%                          DQA1*0505           35%
DRB4*0103               47%                      DQA1*05                 100% TOTAL
DRB4*010301              2%
DRB4*01030101            2%
    DRB4*01             31%                      23 LABS REPORTING DPB1
                                                DPB1*0201+               4%
                                                DPB1*0201               74%
                                                DPB1*020102             22%

                                                DPB1*0402/*0602         17%
                                                DPB1*0402               83%


8 SEROLOGY LABS
DR4                     100%                     DQ7                     100%


DR11                    100%                     DQ3                     50%
                                                    DQ8                 50%
DR52                    100%                     DQ3                     100% TOTAL


DR53                    100%
```

CTR	DIRNAME	DRB1	DRB1X	DRB3	DQB1	DQB1X	DQA1	DQA1X	DPB1	DPB1X	METHOD
4079	Abbal,Michel	*0301	*1113		*0201	*0503					RSSO,P-SSP
5488	Adams,Sharon	*030101	*1113	*0202	*020101	*050301	*0104/05	*0501	*0202	*040101	RSSO,SSP,SBT
8062	Al-Attas,Rab	*03	*11		*02	*05					SSO
2020	Barnardo,Mar	*030101	*1113	*0202/05+	*020101	*050301	*0101/04/05+	*0501	*0202	*040101	SBT,P-SSP
774	Cecka,J.Mich	*0301/32/34+	*1113	*0202/23	*0201	*0503					SSP,SSOP
785	Chan,Soh Ha	*0301	*1113	*020201	*0201/04/05	*0503	*0101/04/05	*0501+			SBT
4492	Charron,D.	*0301	*1113	*0202	*0201	*0503	*0104	*0501	*0202	*0401	P-SSO,SSP
3224	Chen,Dongfen	*0301	*1113	*0202	*0201	*0503	*01	*0501			SBT,SSP,RSSO
8021	Clark,Brenda	*0301	*1113	*0107/*02	*0201	*0503			*0202	*0401	P-SSP,SSO
3632	Colombe,Beth	*0301	*1113	*0202	*0201	*0503					SSP
5130	Costeas,Paul	*0301	*1113	*0202	*0201	*0503	*0104	*0501			SSO,SSP
779	Daniel,Claud	*0301	*1113	*01-*03	*020101-05	*050101-05					P-SSP
5219	Daniel,Dolly	*03	*11/*14	*+	*02	*05					P-SSOP
5323	Dhaliwal,J.S	*0301/28/32+	*1113	*0202/23	*02	*05					P-SSP
5891	Du,Keming	*0301/42	*1113		*0201	*0503					
856	Dupont,Bo	*0301/06/16+	*1113		*0201	*0503					SSO
5214	Eckels/CPMC	*03	*1113	*0202	*0201	*0503	*01	*0501	*0202	*0401	SSOP
3428	Eckels/Utah	*0301	*1113		*0201	*0503	*0101/04/05	*0501	*0102/*0202	*0401/*2402+	SSOP
2332	Elkhalifa,Mo	*0301	*1113		*0201	*0503					
4251	Ellis,Thomas	*0301	*1113	*0202/12	*0201	*0503			*0202	*0401	P-SSO,SEQ
3135	Fischer,John	*0301	*1113	*0202	*0201	*0503			*0202	*0401	SBT,P-SSP
762	Fischer/Mayr	*0301	*1113	*0202	*0201	*0503	*01	*0501			RSSO,LBT,SSP+
792	Gandhi&Genco	*0301	*1113	*0202	*0201	*0503	*0104	*0501			P-SSO,SSP
8043	Gideoni,Osna	*0301	*1113		*0201	*0503					SSP
9002	Gideoni_LR	*03	*11		*02	*05					SSO,SSP
234	Gomez,Carmen	*03	*11	*02	*02	*05					SSOP
5195	Gomez,Carmen	*03	*1113	*0202	*02	*0503					SSOP
910	Hahn,Amy B.	*0301/32/34+	*1113	*0202/23	*0201	*0503					SSP
4691	Hajeer,Ali	*03	*11		*02	*05					
810	Hamdi,Nuha	*03010101	*111301		*0205	*050301					SSO
4269	Hanau,Daniel	*0301	*1113								P-RVSSO
1461	Hidajat,M.	*0301	*1113	*0202	*0201	*0503			*0202	*0401/*9901	SSO,SSP
2344	Hurley/Hartz	*03010101+	*111301/1302		*020101	*050301			*0202	*040101	SBT,SSOP
771	Israel,Shosh	*0301	*1113		*0201	*0503					RVSSO,SSP
9003	Israel_LR	*03	*11		*02	*05					SSO
748	Jaramillo,An	*03(DR17)	*11	*+	*02	*05					P-SSP
859	Kamoun,Malek	*0301	*1113	*0202	*0201	*0503	*0101/04/05	*0501			P-SSO,SSP
797	Kato,Shunich	*0301	*1113		*0202/02/04	*0503					SSO,+SBT-DR
4337	Kim,Tai-Gyu	*0301	*1113		*0201	*0503			*0202	*0401	SBT
168	Klein,Tirza	*0301	*1113		*0201	*0503					P-SSO,SSP
9000	Klein_LR	*03	*11		*02	*05					P-SSO,SSP
87	Land,Geoffre	*0301	*1113	*0202	*0201	*0503	*0104/05	*0501	*0202	*0401/*2302N	SSO,SSP,SBT
725	Lardy,N,M.	*03	*11	*+	*02	*05	*0104	*0501			SSO,SSP
278	Lee,Jar-How	*0301	*1113	*0202	*0201	*0503	*0101/04/05	*0501	*0202	*0401	RVSSOP,SSP
640	Lee,Kyung Wh	*0301	*1113		*0201	*0503	*010401	*050101			P-SBT
6649	Lim,Young Ae	*03	*14	*+							P-SSP
731	Loewenthal,R	*030101	*1113		*0201	*050301					SSO,SBT
759	Lopez-Cepero	*0301/16/18+	*1113		*0201	*0503	*0101/04/05	*0501	*0202/03	*0401/*2302N+	RVSSO
23	Mah,Helen	*0301	*1113	*0202	*0201	*0503	*0101/04/05	*0501			SSO,SSP
8029	Mani,Rama	*03	*11	*+							P-SSP
206	McAlack-Bala	*03	*1113	*0202	*0201	*0503					SSO
9916	McIntyre,Joh	*030101	*1113	*0202	*0201	*0503					SSP,SBT
794	Merenmies,Ju	*0301	*1113	*0202	*0201	*0503			*0202	*0401	SBT,SSO,SSP
8042	Muncher,Lior	*0301	*1113		*0201	*0503					SSP,SSOP
8065	Padua,Flore	*03	*11	*01	*02	*05					SSP
5096	Park,Yun Mi	*03	*11								P-SSO
3648	Pereira,Noem	*0301/42/50	*1113		*020101	*050301					RVSSO,SBT

B-CELL LINE TER-436

CTR	DIRNAME	DRB1	DRB1X	DRB3	DQB1	DQB1X	DQA1	DQA1X	DPB1	DPB1X	METHOD
3966	Permpikul&Ve	*0301	*1113	*0202	*0201	*0503					P-SSP
2400	Phelan,Donna	*0301	*1113	*02	*0201	*0503					RSSO,SBT,SSP
3753	Reed,Elaine	*0301/42	*1113	*0202	*0201	*0503	*0101/04/05	*0501			SBT,SSO
3798	Reinsmoen,N	*030101	*1113	*0202	*0201	*050301	*0104	*0501	*0202	*0401/*2302N	SSP,SSO,SBT
1160	Rosen-Bronso	*0301	*11	*02	*02	*05					RVSSO,SSP
793	Rubocki,Rona	*03(DR17)	*11	*+	*02	*05					P-SSP
3519	Semana,Gilbe	*0301	*1113	*0202	*0201	*0503			*0202	*0401	SBT,P-SSP
8001	Sheikh,Maqso	*0301	*1113	*0202	*0201	*0503					RVSSOP,SSP
735	Smith/MI	*0301/42	*1113	*0202	*0201	*0503	*0101/04/05+	*0501	*0202	*0401	SEQ,SSP,RSSO
746	Stamm,Luz	*0301	*1113	*02	*0201	*0503					RSSO,SSP,SBT
13	Tagliere,Jac	*0301	*1113	*0202	*0201	*0503					SSP
747	Tiercy,Jean-	*03010101+	*111301/1302	*0202	*0201	*050301			*0202	*040101	
5451	Tilanus,Marc	*0301	*1113	*020201	*020101	*050301	*010401	*050101	*0202	*040101	SBT
4021	Trachtenberg	*03	*11	*02	*0201	*0503					RVSSOP
5462	Turner,E.V.	*0301	*1113	*0202/22+	*0201	*0503	*0101/04/05	*0501	*0202	*0401/*2302N	SEQ,SSO,SSP
5642	Varnavidou-N	*0301	*1113	*+	*0201	*050301					P-SSP
3511	Zeevi,Adrian	*0301	*1113	*0202	*0201	*0503	*0104/05	*0501	*0202	*0401	SSP,RVSSOP

CTR	DIRNAME	DR17	DR11	DR52	DQ2	DQ1	OTH1	OTH2
4492	Charron,D.	NT						
234	Gomez,Carmen	+	+	+	+	DQ5		
5195	Gomez,Carmen	+	+	+	+	DQ5		
910	Hahn,Amy B.	+	+	+	+	+	DR18,DR14	
4908	Kvam,Vonnett	+	+	+	+	+		
54	McAlack,Robe	+	+	+	+	+		
8004	Pais,Maria L	+		+	+	DQ6	DR14	
793	Rubocki,Rona	+	+	+	+	+		
8063	Shai,Isaac	DR3	+	+	+	DQ5	DR10	

```
B-CELL LINE TER-436 (Caucasian)
73 DNA LABS


73 LABS REPORTING DRB1                        70 LABS REPORTING DQB1
DRB1*03                 37%                    DQB1*02                 24%
    DRB1*0301           54%                        DQB1*0201           67%
    DRB1*030101          8%                        DQB1*020101          7%
    DRB1*03010101        1%                        DQB1*0205            2%
DRB1*03                100% TOTAL              DQB1*02                100% TOTAL


DRB1*11                 19%                    DQB1*05                 20%
    DRB1*1113           77%                        DQB1*0503           66%
    DRB1*111301          1%                        DQB1*050301         14%
DRB1*11                 97% TOTAL             DQB1*05                100% TOTAL



50 LABS REPORTING DRB3                        23 LABS REPORTING DQA1
DRB3*+                  18%                    DQA1*01                 22%
DRB3*0202               54%                        DQA1*0101/04/05     35%
DRB3*020201              4%                        DQA1*0104/05        13%
    DRB3*02             22%                        DQA1*0104           22%
                                                   DQA1*010401          8%
                                              DQA1*01                100% TOTAL


                                              DQA1*05                  4%
                                                  DQA1*0501           87%
                                                  DQA1*050101          9%
                                              DQA1*05                100% TOTAL



                                              22 LABS REPORTING DPB1
                                              DPB1*0202+               9%
                                              DPB1*0202               91%

                                              DPB1*0401/*2302N        18%
                                              DPB1*0401+               9%
                                              DPB1*0401               50%
                                              DPB1*040101             23%


8 SEROLOGY LABS
DR3                     12%                    DQ2                    100%
    DR17                88%
DR3                    100% TOTAL             DQ1                     50%
                                                  DQ5                 38%
DR11                    88%                        DQ6                 12%
                                              DQ1                    100% TOTAL
DR52                   100%
```

```
       INVESTIGATOR   DNA EXTRACT #477 (Caucasian)
  CTR    NAME         A1                      A2               B1             B2                    C1                   C2             method
 5488 Adams,Sharon    *020101                 *290201          *2709          *440301               *010201              *160101        RSSO,SSP,SBT
  745 Anthony Nola    *020101                 *290201          *2709          *440301               *010201              *160101        SSO,SSP,SBT
 4345 Blasczyk,Rai    *0201/01L/09/43N+       *2902            *2709          *4403                 *0102/25             *1601
 5106 Brown,Colin     *02                     *29              *2709          *44                   *01                  *1601/08
  785 Chan,Soh Ha     *02                     *2902/06/09      *2709          *4403                 *0102/10/25/31        *1601          SBT
 3224 Chen,Dongfen    *0201                   *2902            *2709          *4403                 *0102                 *1601          SBT,RVSSOP
 8021 Clark,Brenda    *020101-0104/0106+      *2901-12+        *2703/07/09+   *4403/04/07+          *0102/03/06-11+       *1601/02/06+
 5219 Daniel,Dolly    *02                     *29              *27            *44                                                       PCR-SSOP
 5323 Dhaliwal,J.     *02                     *29              *27            *44                   *01                  *16            PCR-SSP
 5891 Du,Keming       *0201                   *2902            *2709          *4403                 *0102                 *1601          PCR-SBT
 3186 Dunckley,Hea    *02                     *29              *27            *44                   *01                  *16            SSP,RSSO-A,B
 3766 Dunn,Paul       *02                     *29              *2709/46       *44                   *01                  *16            SSO
 3428 Eckels/Utah     *02                     *2902/06/10      *2709/46       *4403                 *0102/17/25           *1601          SSOP
 2332 Elkhalifa,Mo    *02                     *29              *27            *44                   *01                  *16            SSP
 4251 Ellis,Thomas    *0201                   *2902            *2709          *4403                 *0102                 *1601          PCR-SSO,SEQ
  762 Fischer&Mayr    *0201                   *2902            *2709          *4403                 *0102/25              *1601          RSSO,SSP,SBT
 3135 Fischer,John    *0201/01L               *2902            *2709          *4403                 *0102                 *1601          PCR-SSO,SBT
  234 Gomez,Carmen    *02                     *29              *27            *44                   *01                  *16            SSP
 5195 Gomez,Carmen    *02                     *29              *2709          *44                   *01                  *16            SSOP
 4691 Hajeer,Ali      *02                     *29              *27            *44                   *01                  *16            SSO
  810 Hamdi,Nuha      *02010101               *29010101        *2709          *440301               *010201              *160101        SSO
 1461 Hidajat,Mela    *0201                   *2902            *2709          *4403                 *0102                 *1601          SSO,SSP
  615 Holdsworth,R    *0201/09/43N/66/75+     *2902            *2709          *4403                 *0102/25             *1601          SBT
 2344 Hurley&Hartz    *02010101/010102L+      *290201          *2709          *440301/0303/0304     *010201/0202/25       *160101        SBT,SSOP
  748 Jaramillo,An    *02                     *29              *27            *44                   *01                  *16            SSOP
  797 Kato,Shunich    *0201/01L               *2902            *2709          *4403                 *0102                 *1601          SSO,SBT
 2847 Kihara,Masaa    *02                     *29              *27            *44                   *01                  *16            RVSSO
   87 Land,Geoff      *0201                   *2902            *2709          *4403                 *0102                 *1601
  278 Lee,Jar-How     *0201/*9221/32/34+      *2902/10         *2709          *4403                 *0102                 *1601          SSO,SSP
  640 Lee,Kyung Wh    *0201                   *2902            *2709          *4403                 *0102                 *1601          PCR-SBT
 4651 Leech,Stephe    *02                     *29              *27            *44                   *01                  *16            SSO
 1108 Linke,Robert    *02                     *29              *27            *44                   *01                  *16            SSO
 9916 McIntyre,Joh    *020101                 *290201          *2709          *440301               *0102/25-33           *1601/13-18    SSP,SBT
  794 Merenmies,Ju    *0201                   *2902            *2709          *4403                 *0102                 *1601          SBT,SSO,SSP
 8042 Muncher,Lior    *0201                   *2902            *2709          *4403                 *0102                 *1601          SSOP,SSP
 8022 Olerup,Olle     *0201                   *2902            *2709          *4403                 *0102                 *1601          SSP
 8065 Padua,Florec    *02                     *29              *27            *44                                                       SSP
 5096 Park,Yun Mi     *02                     *29              *27            *44                                                       PCR-SSO
 3648 Pereira,Noem    *0201/01L               *2902            *2709          *4403                 *0102                 *1601          RSSO,SSP,SBT
 3966 Permpikul&Ve    *02                     *29              *27            *44                   *01                  *16            PCR-SSP
 2400 Phelan,Donna    *0201                   *2902            *2709          *4403                 *0102                 *1601          RSSO,SBT,SSP
 3753 Reed,Elaine     *0201/*9274             *2902/09         *2709          *4403                 *0102/12             *1601/18       SBT
 3625 Rees,Tracey     *02                     *29              *27            *44                   *01                  *16            PCR-SSP,SBT
 3798 Reinsmoen,N     *020101/01L             *290201          *2709          *440301               *010201              *160101        SSP,RSSO,SBT
 1694 Sauer&Gottwa    *02                     *29              *27            *44                   *01                  *16            SSP
 3545 Scornik,Juan    *0201                   *2902            *2709          *4403                 *0102                 *1601          SSOP,SBT
  735 Smith/MI        *02                     *29              *27            *44                   *01                  *16            RVSSOP,SSP
  746 Stamm,Luz       *0201                   *2902            *2709          *4403                 *0102                 *1601          RVSSO,SSP
   13 Tagliere,Jac    *0201                   *2902            *2709          *4403                 *0102                 *1601
 4021 Trachtenberg    *02                     *29              *27            *44                   *01                  *16            RVSSO,SSP
 5462 Turner,E.V.     *0201                   *290201          *2709          *440301               *0102                 *1601          SEQ,SSO,SSP
  789 Walter Reed     *02                     *29              *27            *44                   *01                  *16            PCR-SSP
```

```
        INVESTIGATOR    DNA EXTRACT #478 (Japanese)
CTR    NAME            A1                    A2                  B1                     B2                   C1                    C2                 method
5488 Adams,Sharon     *020601               *240201             *070201/61             *5103                *070201/50            *140201            RSSO,SSP,SBT
 745 Anthony Nola     *0206                 *2402               *070201                *5103                *070201               *140201            SSO,SSP,SBT
4345 Blasczyk,Rai     *0206/*9226           *2402/02L/09N+      *0702/44/49N/58+       *5103                *0702/50/66/74        *1402
5106 Brown,Colin      *0206                 *2402               *0702                  *5103                *0702                 *1402
 785 Chan,Soh Ha      *02                   *24                 *0702/24/26/36+        *51/*56/*7802        *0702/37/50/51+       *1402/06/13        SBT
3224 Chen,Dongfen     *0206                 *2402               *0702/61               *5103                *0702/50              *1402              SBT,RSSOP
8021 Clark,Brenda     *020101-0104/0106+    *2402/03/07+        *0702/04/10+           *510101-0103/0105+   *0702/03/08/10+       *1402/03/05+
5219 Daniel,Dolly     *02                   *24                 *07                    *51                                                           PCR-SSOP
5323 Dhaliwal,J.      *02                   *24                 *07                    *51                  *07                   *14                PCR-SSP
5891 Du,Keming        *0206                 *2402               *0702                  *5103                *0702                 *1402              PCR-SBT
3186 Dunckley,Hea     *02                   *24                 *07                    *51                  *07                   *14                SSP,RSSO-A,B
3766 Dunn,Paul        *02                   *24                 *07                    *51                  *07                   *14                SSO
3428 Eckels/Utah      *0206/*9226/44/70     *24                 *07                    *51                  *07                   *1402              SSOP
2332 Elkhalifa,Mo     *02                   *24                 *07                    *51                  *07                   *14                SSP
4251 Ellis,Thomas     *0206                 *2402               *0702/61               *5103                *0702/50              *1402              PCR-SSO,SEQ
 762 Fischer&Mayr     *0206/*9226           *2402               *0702/44/49N/58+       *5103                *0702/50/66/74        *1402              RSSO,SSP,SBT
3135 Fischer,John     *0206                 *2402               *0702                  *5103                *0702                 *1402              PCR-SSO,SBT
 234 Gomez,Carmen     *02                   *24                 *07                    *51                  *07                   *14                SSP
5195 Gomez,Carmen     *02                   *24                 *07                    *51                  *07                   *14                SSOP
4691 Hajeer,Ali       *02                   *24                 *07                    *51                  *07                   *14                SSO
 810 Hamdi,Nuha       *020601               *24020101           *070201                *510101              *07020101             *140201            SSO
1461 Hidajat,Mela     *0206                 *2402               *0702                  *5103                *0702                 *1402              SSO,SSP
 615 Holdsworth,R     *0206/*9226           *2402/09N/11N+      *0702/44/49N/58+       *5103                *0702/50/66/74        *1402              SBT
2344 Hurley&Hartz     *020601/*9226         *24020101+          *070201/0206+          *5103                *07020101+            *140201            SBT,SSOP
 748 Jaramillo,An     *02                   *24                 *07                    *51                  *07                   *14                SSOP
 797 Kato,Shunich     *0206                 *2402               *0702/61               *5103                *0702/50              *1402              SSO,SBT
2847 Kihara,Masaa     *02                   *24                 *07                    *51                  *07                   *14                RVSSO
  87 Land,Geoff       *0206                 *2402               *0702                  *5101/03             *0702                 *1402
 278 Lee,Jar-How      *0206/*9226           *2402/76/78/79+     *0702/61               *5103                *0702/61N/62          *1402/11           SSO,SSP
 640 Lee,Kyung Wh     *0206/76              *2402/50            *0702/61               *5103                *0702/37/50           *1402/06           PCR-SBT
4651 Leech,Stephe     *02                   *24                 *07                    *51                  *07                   *14                SSO
1108 Linke,Robert     *02                   *24                 *07                    *51                  *07                   *14                SSO
9916 McIntyre,Joh     *020601               *24020101           *070201                *5103                *0702/5602/61N+       *1402/13/14        SSP,SBT
 794 Merenmies,Ju     *0206                 *2402               *0702/61               *5103                *0702/50              *1402              SBT,SSO,SSP
8042 Muncher,Lior     *0206                 *2402               *0702                  *5103                *0702                 *1402              SSOP,SSP
8022 Olerup,Olle      *0206                 *2402               *0702                  *5103                *0702                 *1402              SSP
8065 Padua,Florec     *02                   *24                 *07                    *51                                                           SSP
5096 Park,Yun Mi      *02                   *24                 *07                    *51                                                           PCR-SSO
3648 Pereira,Noem     *0206                 *2402               *0702/61               *5103                *0702/50//*0751       *1402//*1413       RSSO,SSP,SBT
3966 Permpikul&Ve     *02                   *24                 *07                    *51                  *07                   *14                PCR-SSP
2400 Phelan,Donna     *0206                 *2402               *0702/61               *5103                *0702                 *1402              RSSO,SBT,SSP
3753 Reed,Elaine      *0206/76/*9242        *2402/13/50         *0702/61               *5103                *0702/37/50/51        *1402/06/13        SBT
3625 Rees,Tracey      *02                   *24                 *07                    *51                  *07                   *14                PCR-SSP,SBT
3798 Reinsmoen,N      *020601               *240201/01L         *070201/61             *5103                *070201/50            *140201            SSP,RSSO,SBT
1694 Sauer&Gottwa     *02                   *24                 *07                    *51                  *07                   *14                SSP
3545 Scornik,Juan     *0206                 *2402               *0702/61               *5103                *0702/50              *1402              SSOP,SBT
 735 Smith/MI         *02                   *24                 *07                    *51                  *07                   *14                RVSSOP,SSP
 746 Stamm,Luz        *0206                 *2402               *0702                  *5103                *0702                 *1402              RVSSO,SSP
  13 Tagliere,Jac     *0206                 *2402               *0702                  *5103                *0702                 *1402
4021 Trachtenberg     *02                   *24                 *07                    *51                  *07                   *14                RVSSO,SSP
5462 Turner,E.V.      *020601               *240201             *0702/61               *5103                *0702                 *1402              SEQ,SSO,SSP
 789 Walter Reed      *02                   *24                 *07                    *51                  *07                   *14                PCR-SSP
```

```
         INVESTIGATOR    DNA EXTRACT #479 (Caucasian)
CTR    NAME            A1              A2                 B1              B2         C1                  C2                method
5488 Adams,Sharon    *290201         *300201            *140201         *3702      *020202             *0802             RSSO,SSP,SBT
 745 Anthony Nola    *290201         *300201            *140201         *3702      *020202             *080201           SSO,SSP,SBT
4345 Blasczyk,Rai    *2902           *3002              *1402           *3702      *0202               *0802
5106 Brown,Colin     *29             *3002/10           *1402           *3702      *02                 *0802
 785 Chan,Soh Ha     *2902/06        *3002              *1402           *3702      *0202/27/29         *05/*08           SBT
3224 Chen,Dongfen    *2902           *3002              *1402           *3702      *0202               *0802             SBT,RVSSOP
8021 Clark,Brenda    *2901-12+       *3001-0202/0204+   *1402-04/09     *3702      *0202/04-15+        *0802/04/05+
5219 Daniel,Dolly    *29             *30                *14             *37                                              PCR-SSOP
5323 Dhaliwal,J.     *29             *30                *14             *37        *02                 *08               PCR-SSP
5891 Du,Keming       *2902           *3002              *1402           *3702      *0202               *0802             PCR-SBT
3186 Dunckley,Hea    *29             *30                *1402/03/09     *3702      *02                 *08               SSP,RSSO-A,B
3766 Dunn,Paul       *29             *3002/10/12        *1402/09        *3702      *02                 *0802/05/17       SSO
3428 Eckels/Utah     *2902/06/10     *3002              *1402/09        *3702      *0202               *0802/05/17       SSOP
2332 Elkhalifa,Mo    *29             *30                *14             *37        *02                 *08               SSP
4251 Ellis,Thomas    *2902           *3002              *1402           *3702      *0202               *0802             PCR-SSO,SEQ
 762 Fischer&Mayr    *2902           *3002              *1402           *3702      *0202               *0802             RSSO,SSP,SBT
3135 Fischer,John    *2902           *3002              *1402           *3702      *0202               *0802             PCR-SSO,SBT
 234 Gomez,Carmen    *29             *30                *14             *37        *02                 *08               SSP
5195 Gomez,Carmen    *29             *30                *14             *3702      *02                 *08               SSOP
4691 Hajeer,Ali      *29             *30                *14             *37        *02                 *05               SSO
 810 Hamdi,Nuha      *29010101       *300201            *140201         *3702      *020202             *0802             SSO
1461 Hidajat,Mela    *2902           *3002              *1402           *3702      *0202               *0802             SSO,SSP
 615 Holdsworth,R    *2902           *3002/33           *1402           *3702      *0202/29            *0802             SBT
2344 Hurley&Hartz    *290201         *300201/0202/33    *140201         *3702      *020202/29          *080201           SBT,SSOP
 748 Jaramillo,An    *29             *30                *1402           *37        *02                 *08               SSOP
 797 Kato,Shunich    *2902           *3002              *1402           *3702      *0202               *0802             SSO,SBT
2847 Kihara,Masaa    *29             *30                *14             *37        *02                 *08               RVSSO
  87 Land,Geoff      *2902           *3002              *1402           *3702      *0202               *0802
 278 Lee,Jar-How     *2902/10        *3002              *1402/09        *3702      *0202               *0802/17          SSO,SSP
 640 Lee,Kyung Wh    *2902           *3002              *1402           *3702      *0202               *0802             PCR-SBT
4651 Leech,Stephe    *29             *30                *(B65)          *37        *02                 *08               SSO
1108 Linke,Robert    *29             *30                *14             *37        *02                 *08               SSO
9916 McIntyre,Joh    *290201         *300201            *140201         *3702      *0202/24/25Q/28+    *0802/17/19+      SSP,SBT
 794 Merenmies,Ju    *2902           *3002              *1402           *3702      *0202               *0802             SBT,SSO,SSP
8042 Muncher,Lior    *2902           *3002              *1402           *3702      *0202               *0802             SSOP,SSP
8022 Olerup,Olle     *2902           *3002              *1402           *3702      *0202               *0802             SSP
8065 Padua,Florec    *29             *30                *14(B65)        *3702                                            SSP
5096 Park,Yun Mi     *29             *30                *14             *37                                              PCR-SSO
3648 Pereira,Noem    *2902           *3002              *1402           *3702      *0202               *0802             RSSO,SSP,SBT
3966 Permpikul&Ve    *29             *30                *14             *37        *02                 *08               PCR-SSP
2400 Phelan,Donna    *2902           *3002              *1402           *3702      *0202               *0802             RSSO,SBT,SSP
3753 Reed,Elaine     *2902           *3002              *1402           *3702      *0202/27            *0802/*0501       SBT
3625 Rees,Tracey     *29             *30                *1402           *3702      *02                 *08               PCR-SSP,SBT
3798 Reinsmoen,N     *290201         *300201            *140201         *3702      *020202             *0802             SSP,RSSO,SBT
1694 Sauer&Gottwa    *29             *30                *14             *37        *02                 *08               SSP
3545 Scornik,Juan    *2902           *3002              *1402           *3702      *0202               *0802             SSOP,SBT
 735 Smith/MI        *29             *30                *14(B65)        *37        *02                 *08               RVSSOP,SSP
 746 Stamm,Luz       *2902           *3002              *1402           *3702      *0202               *0802             RVSSO,SSP
  13 Tagliere,Jac    *2902           *3002              *1402           *3702      *0202               *0802
4021 Trachtenberg    *29             *30                *14             *3702      *02                 *08               RVSSO,SSP
5462 Turner,E.V.     *290201         *300201            *140201         *3702      *0202               *0802             SEQ,SSO,SSP
 789 Walter Reed     *29             *30                *14             *37        *02                 *08               PCR-SSP
```

```
         INVESTIGATOR   DNA EXTRACT #480 (Korean)
CTR    NAME            A1            A2             B1                B2                  C1                C2             method
5488 Adams,Sharon    *290201       *680101        *2705/13          *440301             *020202/27        *160101/02     RSSO,SSP,SBT
 745 Anthony Nola    *290201       *680101        *2705             *4403               *020202           *160101        SSO,SSP,SBT
4345 Blasczyk,Rai    *2902         *6801          *2705/13          *4403               *0202             *1601
5106 Brown,Colin     *2902         *6801          *2705             *4403               *0202             *1601
 785 Chan,Soh Ha     *2902/06      *6801          *2705/13          *4403               *0202/27/29       *1601/02       SBT
3224 Chen,Dongfen    *2902         *6801          *2705             *4403               *0202             *1601          SBT,RVSSOP
8021 Clark,Brenda    *2901-12+     *6801/02/06+   *2701/02/05/08+   *4403/04/07+        *0202/04-15+      *1601/08/10+
5219 Daniel,Dolly    *29           *68            *27               *44                                                  PCR-SSOP
5323 Dhaliwal,J.     *29           *68            *27               *44                 *02               *16            PCR-SSP
5891 Du,Keming       *2902         *6801          *2705             *4403               *0202             *1601          PCR-SBT
3186 Dunckley,Hea    *29           *68            *27               *44                 *02               *16            SSP,RSSO-A,B
3766 Dunn,Paul       *29           *68            *27               *44                 *02               *16            SSO
3428 Eckels/Utah     *2902/06/10   *6801/43       *2705/13/50       *4403/37            *0202/27          *1601/02/12    SSOP
2332 Elkhalifa,Mo    *29           *68            *27               *44                 *02               *16            SSP
4251 Ellis,Thomas    *2902         *6801          *2705/13          *4403               *0202             *1601          PCR-SSO,SEQ
 762 Fischer&Mayr    *2902         *6801          *2705/13          *4403               *0202             *1601          RSSO,SSP,SBT
3135 Fischer,John    *2902         *6801          *2705             *4403               *0202             *1601          PCR-SSO,SBT
 234 Gomez,Carmen    *29           *68            *27               *44                 *02               *16            SSP
5195 Gomez,Carmen    *29           *68            *27               *44                 *02               *16            SSOP
4691 Hajeer,Ali      *29           *68            *27               *44                 *02               *16            SSO
 810 Hamdi,Nuha      *29010101     *680101        *2703             *440301             *020202           *160101        SSO
1461 Hidajat,Mela    *2902         *6801          *2705             *4403               *0202             *1601          SSO,SSP
 615 Holdsworth,R    *2902         *6801          *2705/13          *4403               *0202/29          *1601          SBT
2344 Hurley&Hartz    *290201       *680101/0107   *270502/0504/13   *440301/0303/0304   *020202/29        *160101        SBT,SSOP
 748 Jaramillo,An    *29           *68            *27               *44                 *02               *16            SSOP
 797 Kato,Shunich    *2902         *6801          *2705/13          *4403               *0202/27          *1601/02       SSO,SBT
2847 Kihara,Masaa    *29           *68            *27               *44                 *02               *16            RVSSO
  87 Land,Geoff      *2902         *6801          *2705             *4403               *0202             *1601
 278 Lee,Jar-How     *2902/10      *6801/43       *2705             *4403               *0202             *1601          SSO,SSP
 640 Lee,Kyung Wh    *2902         *6801          *2705/13          *4403               *0202/27          *1601/02       PCR-SBT
4651 Leech,Stephe    *29           *68            *27               *44                 *02               *16            SSO
1108 Linke,Robert    *29           *68            *27               *44                 *02               *16            SSO
9916 McIntyre,Joh    *290201       *680101        *270502           *440301             *0202/24/25Q/28+  *1601/13-17    SSP,SBT
 794 Merenmies,Ju    *2902         *6801          *2705/13          *4403               *0202             *1601          SBT,SSO,SSP
8042 Muncher,Lior    *2902         *6801          *2705             *4403               *0202             *1601          SSOP,SSP
8022 Olerup,Olle     *2902         *6801          *2705             *4403               *0202             *1601          SSP
8065 Padua,Florec    *29           *68            *27               *44                                                  SSP
5096 Park,Yun Mi     *29           *68            *27               *44                                                  PCR-SSO
3648 Pereira,Noem    *2902         *6801          *2705/13          *4403               *0202             *1601          RSSO,SSP,SBT
3966 Permpikul&Ve    *29           *68            *27               *44                 *02               *16            PCR-SSP
2400 Phelan,Donna    *2902         *6801          *2705/13          *4403               *0202             *1601          RSSO,SBT,SSP
3753 Reed,Elaine     *2902         *6801          *2705/13          *4403               *0202/27          *1601/02       SBT
3625 Rees,Tracey     *29           *68            *27               *44                 *02               *16            PCR-SSP,SBT
3798 Reinsmoen,N     *290201       *680101        *2705/13          *4403               *020202           *160101        SSP,RSSO,SBT
1694 Sauer&Gottwa    *29           *68            *27               *44                 *02               *16            SSP
3545 Scornik,Juan    *2902         *6801          *2705/13          *4403               *0202             *1601          SSOP,SBT
 735 Smith/MI        *29           *68            *27               *44                 *02               *16            RVSSOP,SSP
 746 Stamm,Luz       *2902         *6801          *2705             *4403               *0202             *1601          RVSSO,SSP
  13 Tagliere,Jac    *2902         *6801          *2705             *4403               *0202             *1601
4021 Trachtenberg    *29           *68            *27               *44                 *02               *16            RVSSO,SSP
5462 Turner,E.V.     *290201       *680101        *2705/13          *440301             *0202             *1601          SEQ,SSO,SSP
 789 Walter Reed     *29           *68            *27               *44                 *02               *16            PCR-SSP
```

SUMMARY

Extract 477 (Caucasian)		Extract 478 (Japanese)		Extract 479 (Caucasian)		Extract 480 (Korean)	
52 labs		52 labs		52 labs		52 labs	
A*02	56%	A*02	48%	A*29	48%	A*29	46%
A*0201	36%	A*0206/*9226	8%	A*29010101	2%	A*29010101	2%
A*020101	6%	A*020601/*9226	2%	A*2902	38%	A*2902	40%
A*02010101	2%	A*0206	32%	A*290201	12%	A*290201	12%
A*02	100% TOTAL	A*020601	10%	A*29	100% TOTAL	A*29	100% TOTAL
		A*02	100% TOTAL				
A*29	50%			A*30	46%	A*68	44%
A*29010101	2%	A*24	56%	A*3002	42%	A*6801	44%
A*2902	36%	A*2402	36%	A*300201	12%	A*680101	12%
A*290201	12%	A*240201	4%	A*30	100% TOTAL	A*68	100% TOTAL
A*29	100% TOTAL	A*24020101	4%				
		A*24	100% TOTAL				
52 labs		52 labs		52 labs		52 labs	
B*27	40%	B*07	52%	B*14	40%	B*27	42%
B*2709	60%	B*0702/61	21%	B*1402	46%	B*2705/13	31%
B*27	100% TOTAL	B*070201/61	4%	B*140201	14%	B*2703	2%
		B*0702	17%	B*14	100% TOTAL	B*2705	23%
B*44	42%	B*070201	6%			B*270502	2%
B*4403	46%	B*07	100% TOTAL	B*37	27%	B*27	100% TOTAL
B*440301	12%			B*3702	73%		
B*44	100% TOTAL	B*51	44%	B*37	100% TOTAL	B*44	42%
		B*510101	2%			B*4403	50%
		B*5103	52%			B*440301	8%
		B*51	98% TOTAL			B*44	100% TOTAL
49 labs		49 labs		49 labs		49 labs	
Cw*01	47%	Cw*07	59%	Cw*02	49%	Cw*02	45%
Cw*0102/25	8%	Cw*0702/50	10%	Cw*0202	43%	Cw*0202/27	8%
Cw*0102	37%	Cw*070201/50	4%	Cw*020202	8%	Cw*020202/27	2%
Cw*010201	8%	Cw*0702	23%	Cw*02	100% TOTAL	Cw*0202	39%
Cw*01	100% TOTAL	Cw*070201	2%			Cw*020202	6%
		Cw*07020101	2%	Cw*08	41%	Cw*02	100% TOTAL
Cw*16	43%	Cw*07	100% TOTAL	Cw*0802	49%		
Cw*1601	47%			Cw*080201	4%	Cw*16	41%
Cw*160101	10%	Cw*14	49%	Cw*08	94% TOTAL	Cw*1601/02	8%
Cw*16	100% TOTAL	Cw*1402	41%			Cw*160101/02	2%
		Cw*140201	10%			Cw*1601	41%
		Cw*14	100% TOTAL			Cw*160101	8%
						Cw*16	100% TOTAL

```
      INVESTIGATOR   CELL NO.1389 (Black)
CTR    NAME         A1                A2               B1                   B2         C1               C2                method
  745 Anthony Nola  *300201           *7401            *140201              *8101      *080201          *0804             SSO,SSP,SBT
 5106 Brown,Colin   *3002/10          *7401/02/09/11   *1402                *8101-03   *0802/15         *0804/13          P-RVSSOP,SBT
  774 Cecka,J.Mich  *30               *74              *1402-04/06          *8101      *08                                SSP,SSOP
 5232 Charlton,Ron  *3002             *7401            *1402                *8101      *0802            *0804             SSP,RVSSO
 4492 Charron,D.    NT
 4492 Charron_LR    *30               *74              *14                  *81        *08              *08               PCR-SSO
  798 Claas,F.H.J.  *300201           *7401            *140201              *8101      *080201          *0804             SBT,SSP
 3632 Colombe,Beth  *3002             *7401            *1402                *8101      *0802            *0804             SSP
 5130 Costeas,Paul  *3002             *7401            *1402                *8101      *0802            *0804             SSO,SSP
  779 Daniel,Claud  *30               *74              *14(B65)             *81        *08                                PCR-SSO
 3186 Dunckley,Hea  *30               *74              *1402/03/09          *81        *08                                SSP,RSSO-A,B
 3766 Dunn,Paul     *3002/10/12       *7401/02/09/11   *1402/09             *8101-03   *08              *0804/13          SSO
  856 Dupont,Bo     *3002/01/04/10+   *3203            *1402/04             *8101-04N  *0802/07/15/17+  *0801/03/04/08+   SSO
 5214 Eckels/CPMC   *30               *74              *14(B65)             *81        *08              *08
 2332 Elkhalifa,Mo  *30               *74              *14                  *81        *08                                SSP
 4251 Ellis,Thomas  *3002             *7401/02         *1402                *8101/02   *0802            *0804             PCR-SSO,SEQ
  762 Fischer&Mayr  *3002             *7401            *1402                *8101/03   *0802            *0804             RSSO,SBTex1-3
  792 Gandhi&Genco  *3002             *7401            *1402                *8101      *0802            *0804             SSO,SSP
 8043 Gideoni,Osna  *3002/13          *7401            *1402/09             *8101      *0802            *0804/13          SSOP,SSP
  810 Hamdi,Nuha    *300201           *7401            *140201              *8101      *0802            *0813             SSO
 4269 Hanau,Daniel  *30               *74              *14                  *81        *08                                PCR-SSP
  741 Harville,Ter  *3002             *7401            *1402                *8101      *0520            *0804             SSO
 3808 Hogan,Patric  *30               *74              *1402/03/09/11/15+   *81        *08
  771 Israel,Shosh  *3002             *7401            *1402                *8101      *0802            *0804             SBT,SSP
 9003 Israel_LR     *30               *74              *14                  *81        *08                                SSO
  859 Kamoun,Malek  *3002             *7401            *1402                *8101-03   *0802            *0804
 4337 Kim,Tai-Gyu   *3002             *7401/02         *1402                *8101      *0802            *0804             SBT
  168 Klein,Tirza   *30               *74              *14                  *81        *08              *08
  278 Lee,Jar-How   *3002             *7401            *1402/09             *8101      *0802/17/18      *0804/13          SSP,RVSSOP
 6649 Lim,Young Ae  *30               *74              *14(B65)             *81        *08                                PCR-SSP
  731 Loewenthal,R  *300201           *7401/02         *140201              *8101/02   *080201          *0804             SBT
  759 Lopez-Cepero  *3002/10/12       *7401/02/09/11   *1402/09             *8101-03   *0802/05/15      *0804/13          RVSSO
   23 Mah,Helen     *3002/10/12       *74              *1402/09             *8101-03   *0802/05/15/17+  *0804/13          SSO
 8029 Mani,Rama     *30               *74              *14                  *81        *08                                SSP
  206 McAlack-Bala  *30               *74              *1402/09             *81        *08              *08               RVSSOP
 4336 Park,Myoung   *30               *74              *1402/04             *81        *08                                RVSSO
   16 Pidwell/Aska  *300201           *7401/02         *140201              *8101/02   *080201          *0804             PCR-RSSOP,SBT
 3625 Rees,Tracey   *30               *74              *14(B65)             *81        *08                                PCR-SSP
 5200 Reinke,Denni  *30               *74              *14(B65)             *81        *08                                SSP
 1160 Rosen-Bronso  *30               *74              *14                  *81        *08                                RVSSO,SSP
  793 Rubocki,Ron   *30               *74              *14(B65)             *81        *08                                PCR-SSP
 4948 Sage,Deborah  *3002             *7402            *1402                *8101-03   *0802            *0804
 3519 Semana,Gilbe  *3002             *7401/02         *1402                *8101      *0802            *0804             SBT
 8001 Sheikh,Maqso  *30               *74              *1402                *81        *08                                SSP,RVSSOP
  769 Tavoularis,S  *3002             *7401            *1402                *8101      *0802            *0804             SSO,SBT,SSP
  747 Tiercy,Jean-  *3002/33          *7401            *140201              *8101-03   *080201          *0804             P-SSO,SSP,SBT
 5451 Tilanus,Marc  *300201           *7401            *140201              *8101      *080201          *0804             SBT
 5462 Turner,E.V.   *3002             *7401            *1402                *8101      *0802            *0804/13          SEQ,SSO,SSP
```

```
      INVESTIGATOR   CELL NO.1390 (Hispanic)
CTR    NAME         A1              A2              B1                 B2              C1                 C2                method
  745 Anthony Nola  *030101         *24020101       *0702              *3801           *0702              *1203             SSO,SSP,SBT
 5106 Brown,Colin   *0301           *2402           *0702              *3801           *0702/50           *1203             P-RVSSOP,SBT
  774 Cecka,J.Mich  *03             *24             *07                *38             *07                *12               SSP,SSOP
 5232 Charlton,Ron  *0301           *2402           *0702              *3801           *0702              *1203             SSP,RVSSO
 4492 Charron,D.    NT
 4492 Charron_LR    *03             *24             *07                *38             *07                *12               PCR-SSO
  798 Claas,F.H.J.  *0301           *24020101       *070201            *380101         *0702              *12030101         SBT,SSP
 3632 Colombe,Beth  *0301           *2402           *0702              *3801           *0702              *1203             SSP
 5130 Costeas,Paul  *0301           *2402           *0702              *3801           *0702              *1203             SSO,SSP
  779 Daniel,Claud  *03             *24             *07                *38             *07                *12               PCR-SSP
 3186 Dunckley,Hea  *03             *24             *07                *38             *07                *12               SSP,RSSO-A,B
 3766 Dunn,Paul     *03             *24             *07                *38             *07                *12               SSO
  856 Dupont,Bo     *0301+          *2402+/57       *0702+             *3801/09/12-14  *0702/10/17/19+    *1203/06/07/12+   SSO
 5214 Eckels/CPMC   *03             *24             *07                *38             *07                *12
 2332 Elkhalifa,Mo  *03             *24             *07                *38             *07                *12               SSP
 4251 Ellis,Thomas  *0301           *2402           *0702/61           *3801           *0702/50           *1203             PCR-SSO,SEQ
  762 Fischer&Mayr  *0301           *2402           *0702/44/49N/58+   *3801           *0702/50/66/74     *1203             RSSO,SBTex1-3
  792 Gandhi&Genco  *0301           *2402           *0702              *3801           *0702              *1203             SSO,SSP
 8043 Gideoni,Osna  *0301           *2402           *0702              *3801           *0702              *1203             SSOP,SSP
  810 Hamdi,Nuha    *03010101       *24020101       *070201            *380101         *07020101          *12030101         SSO
 4269 Hanau,Daniel  *0301           *2402           *07                *3801           *0702              *1203             PCR-SSP,SBT
  741 Harville,Ter  *0301           *2402           *0702              *3801           *0702              *1203             SSO
 3808 Hogan,Patric  *03             *24             *07                *38             *07                *12
  771 Israel,Shosh  *0301           *2402           *0702              *3801           *0702              *1203             SBT,SSP
 9003 Israel_LR     *03             *24             *07                *38             *07                *12               SSO
  859 Kamoun,Malek  *0301           *2402           *0702              *3801           *0702              *1203
 4337 Kim,Tai-Gyu   *0301/03N       *2402/09N       *0702              *3801           *0702              *1203             SBT
  168 Klein,Tirza   *03             *24             *07                *38             *07                *12
  278 Lee,Jar-How   *0301/46        *2402/78/95     *0702/22/58/59/61  *3801/12        *0701/61N/62       *1203             SSP,RVSSOP
 6649 Lim,Young Ae  *03             *24             *07                *38             *07                *12               PCR-SSP
  731 Loewenthal,R  *030101         *240201         *070201/61         *380101         *070201/50         *120301           SBT
  759 Lopez-Cepero  *0301/04/07/08+ *2402/05/07/15+ *0702/07/10/21/22+ *3801/09/12/16+ *0702/13/29/38+    *1203/06/07/12+   RVSSO
   23 Mah,Helen     *03             *24             *07                *38             *07                *12               SSO
 8029 Mani,Rama     *03             *24             *07                *38                                                  SSP
  206 McAlack-Bala  *03             *24             *07                *38             *07                *12               RVSSOP
 4336 Park,Myoung   *03             *24             *07                *38             *07                *12               RVSSO
   16 Pidwell/Aska  *030101         *240201         *070201/61//*0791  *380101//*3814  *070201/50         *120301           PCR-RSSOP,SBT
 3625 Rees,Tracey   *03             *24             *07                *38             *07                *12               PCR-SSP
 5200 Reinke,Denni  *03             *24             *07                *38             *07                *12               SSP
 1160 Rosen-Bronso  *03             *24             *07                *38             *07                *12               RVSSO,SSP
  793 Rubocki,Ron   *03             *24             *07                *38             *07                *12               PCR-SSP
 4948 Sage,Deborah  *0301/07/17     *2402/21/56     *0702/44/49N/58+   *3801           *0702/50/60/74     *1203
 3519 Semana,Gilbe  *0301           *2402           *0702              *3801           *0702              *1203             SBT
 8001 Sheikh,Maqso  *03             *24             *07                *38             *07                *12               SSP,RVSSOP
  769 Tavoularis,S  *0301           *2402           *0702/61           *3801           *0702              *1203             SSO,SBT,SSP
  747 Tiercy,Jean-  *0301           *2402           *0702              *380101         *0702              *1203             P-SSO,SSP,SBT
 5451 Tilanus,Marc  *030101         *24020101       *070201            *380101         *070201            *120301           SBT
 5462 Turner,E.V.   *0301           *2402           *0702/61/91/93     *3801/14        *0702              *1203             SEQ,SSO,SSP
```

```
     INVESTIGATOR   CELL NO.1391 (Black)
CTR    NAME         A1              A2         B1           B2              C1               C2               method
  745 Anthony Nola  *030101         *6602      *570301      *580101         *0718            *0701/18         SSO,SSP,SBT
 5106 Brown,Colin   *03             *6602      *5703        *58             *07                               P-RVSSOP,SBT
  774 Cecka,J.Mich  *03             *6602/03   *5703/17     *5801           *07                               SSP,SSOP
 5232 Charlton,Ron  *0301           *6602      *5703        *5801           *0718            *0701            SSP,RVSSO
 4492 Charron,D.    *0301/47/51-53+ *6602      *5703        *5801/16/22-24  *0718            *0701/18/77/78+  PCR-SSP
 4492 Charron_LR    *03             *6602      *57          *58             *07                               PCR-SSO
  798 Claas,F.H.J.  *0301           *6602      *570301      *580101         *0718                             SBT,SSP
 3632 Colombe,Beth  *0301           *6602      *5703        *5801           *0718            *0701/18         SSP
 5130 Costeas,Paul  *0301           *6602      *5703        *5801           *0701/18         *0701            SSO,SSP
  779 Daniel,Claud  *03             *66        *57          *58             *07                               PCR-SSP
 3186 Dunckley,Hea  *03             *66        *57          *58             *07                               SSP,RSSO-A,B
 3766 Dunn,Paul     *03             *6602      *5703/17     *58             *07                               SSO
  856 Dupont,Bo     *0301+          *6602      *5703        *5801/04/11-13+ *0701+           *0701+           SSO
 5214 Eckels/CPMC   *03             *6602      *57          *58             *07              *07
 2332 Elkhalifa,Mo  *03             *66        *57          *58             *07                               SSP
 4251 Ellis,Thomas  *0301           *6602      *5703        *5801           *0701/06/18      *0701/06/18      PCR-SSO,SEQ
  762 Fischer&Mayr  *0301           *6602      *5703        *5801/11        *0701/06/18/52                    RSSO,SBTex1-3
  792 Gandhi&Genco  *0301           *6602      *5703        *5801           *0718            *0701            SSO,SSP
 8043 Gideoni,Osna  *0301           *6602      *5703/17     *5801           *0718            *0701/18         SSOP,SSP
  810 Hamdi,Nuha    *03010101       *6602      *570301      *580101         *0718            *070101          SSO
 4269 Hanau,Daniel  NT
  741 Harville,Ter  *0301           *6602      *5703        *5801           *0701                             SSO
 3808 Hogan,Patric  *03             *6602      *57          *58             *07
  771 Israel,Shosh  *0301           *6602      *5703        *5801           *0701                             SBT,SSP
 9003 Israel_LR     *03             *66        *57          *58             *07                               SSO
  859 Kamoun,Malek  *0301           *6602      *5703        *5801           *0718            *0701
 4337 Kim,Tai-Gyu   *0301/03N       *6602      *5703        *5801           *0701                             SBT
  168 Klein,Tirza   *03             *66        *57          *58
  278 Lee,Jar-How   *0301/46        *6602      *5703/17     *5801           *0701/18/58-71                    SSP,RVSSOP
 6649 Lim,Young Ae  *03             *66        *57          *58             *07                               PCR-SSP
  731 Loewenthal,R  *030101         *6602      *570301      *580101         *0701/06/18                       SBT
  759 Lopez-Cepero  *0301/04/13/14+ *6602      *5703/17     *5801           *0701/06/18/20/21                RVSSO
   23 Mah,Helen     *03             *6602      *5703/17     *58             *07              *07              SSO
 8029 Mani,Rama     *03             *66        *57          *58                                               SSP
  206 McAlack-Bala  *03             *6602      *57          *5801           *07              *07              RVSSOP
 4336 Park,Myoung   *03             *6602      *5703        *58             *07                               RVSSO
   16 Pidwell/Aska  *030101         *6602      *570301      *580101         *070101/18                        PCR-RSSOP,SBT
 3625 Rees,Tracey   *03             *6602      *57          *58             *0718            *07              PCR-SSP
 5200 Reinke,Denni  *03             *66        *57          *58             *07                               SSP
 1160 Rosen-Bronso  *03             *66        *57          *58             *07                               RVSSO,SSP
  793 Rubocki,Ron   *03             *66        *57          *58             *07                               PCR-SSP
 4948 Sage,Deborah  *0301           *6602      *5703        *5801/11        *0701/06/18/52
 3519 Semana,Gilbe  *0301           *6602      *5703        *5801           *0718                             SBT
 8001 Sheikh,Maqso  *03             *66        *57          *58             *07                               SSP,RVSSOP
  769 Tavoularis,S  *0301           *6602      *5703        *5801           *0718                             SSO,SBT,SSP
  747 Tiercy,Jean-  NT
 5451 Tilanus,Marc  *030101         *6602      *570301      *580101         *0718                             SBT
 5462 Turner,E.V.   *0301           *6602      *5703        *5801           *0701/18                          SEQ,SSO,SSP
```

```
     INVESTIGATOR  CELL NO.1392 (Hispanic)
CTR    NAME        A1              A2              B1                  B2        C1                  C2                  method
 745 Anthony Nola  *020101         *680102         *3901               *3909     *070201                                 SSO,SSP,SBT
5106 Brown,Colin   *0201           *6801           *3901               *3909     *0702/50                                P-RVSSOP,SBT
 774 Cecka,J.Mich  *02             *68             *39                           *07                                     SSP,SSOP
5232 Charlton,Ron  *0201           *6801           *3901               *3909     *0702               *0702               SSP,RVSSO
4492 Charron,D.    *0201/95        *6801           *3901/010102L/09    *3909     *0702/75/80/84+     *0702/75/80/84+     PCR-SSP
4492 Charron_LR    *02             *68             *39                 *3909     *07                                     PCR-SSO
 798 Claas,F.H.J.  *0201           *680102         *39010101           *3909     *0702                                   SBT,SSP
3632 Colombe,Beth  *0201           *6801           *3901/09            *3909     *0702                                   SSP
5130 Costeas,Paul  *0201           *6801/37        *3901               *3909     *0702               *0702               SSO,SSP
 779 Daniel,Claud  *02             *68                                 *3909     *07                                     PCR-SSP
3186 Dunckley,Hea  *02             *68             *39                           *07                                     SSP,RSSO-A,B
3766 Dunn,Paul     *02             *68             *39                 *3909     *07                                     SSO
 856 Dupont,Bo     *0201+          *6823           *3901                         *0702/10/17/19+     *0701+              SSO
5214 Eckels/CPMC   *02             *68             *39                 *3909     *07                 *07
2332 Elkhalifa,Mo  *02             *68             *39                           *07                                     SSP
4251 Ellis,Thomas  *0201           *6801/11N       *3901               *3909     *0702/50            *0702/50            PCR-SSO,SEQ
 762 Fischer&Mayr  *0201           *6801/33        *3901/01L/46        *3909     *0702/50/66/74                          RSSO,SBTex1-3
 792 Gandhi&Genco  *0201           *6801           *3901/10            *3909     *0702                                   SSO,SSP
8043 Gideoni,Osna  *0201           *6801           *3901               *3909     *0702                                   SSOP,SSP
 810 Hamdi,Nuha    *02010101       *680102         *3915               *3909     *07020101           *0705               SSO
4269 Hanau,Daniel  NT
 741 Harville,Ter  *0201           *6801           *3901               *3909     *0702                                   SSO
3808 Hogan,Patric  *02             *68             *39                           *07
 771 Israel,Shosh  *0201           *6801           *3901               *3909     *0702                                   SBT,SSP
9003 Israel_LR     *02             *68             *39                           *07                                     SSO
 859 Kamoun,Malek  *0201/95        *6801           *3901               *3909     *0702
4337 Kim,Tai-Gyu   *0201           *6801           *3901               *3909     *0702                                   SBT
 168 Klein,Tirza   *02             *68             *39                 *39       *07                 *07
 278 Lee,Jar-How   *0201           *6801           *3901               *3909     *0702                                   SSP,RVSSOP
6649 Lim,Young Ae  *02             *68             *39                           *07                                     PCR-SSP
 731 Loewenthal,R  *020101/22      *680102/11N/08  *3901               *3909     *070201/50                              SBT
 759 Lopez-Cepero  *0201/07/09/18+ *6801/07/08/12+ *3901/15/19/26/27+  *3909     *0702/05/13/23/25+                      RVSSO
  23 Mah,Helen     *02             *68             *39                 *3909     *07                 *07                 SSO
8029 Mani,Rama     *02             *68             *39                                                                   SSP
 206 McAlack-Bala  *02             *68             *39                 *3909     *07                 *07                 RVSSOP
4336 Park,Myoung   *02             *68             *39                           *07                                     RVSSO
  16 Pidwell/Aska  *020101         *680102/11N     *3901               *3909     *070201/50                              PCR-RSSOP,SBT
3625 Rees,Tracey   *02             *68             *39                           *07                                     PCR-SSP
5200 Reinke,Denni  *02             *68             *39                           *07                                     SSP
1160 Rosen-Bronso  *02             *68             *39                           *07                                     RVSSO,SSP
 793 Rubocki,Ron   *02             *68             *39                           *07                                     PCR-SSP
4948 Sage,Deborah  *0201/22        *6801/08/11N    *3901/46            *3909     *0702/50/66/74
3519 Semana,Gilbe  NT
8001 Sheikh,Maqso  *02             *68             *39                           *07                                     SSP,RVSSOP
 769 Tavoularis,S  *0201           *6801           *3901/01L           *3909     *0702                                   SSO,SBT,SSP
 747 Tiercy,Jean-  NT
5451 Tilanus,Marc  *020101         *680102         *3901               *3909     *070201                                 SBT
5462 Turner,E.V.   *0201           *680102         *3901               *3909     *0702                                   SEQ,SSO,SSP
```

Cell 1389 (Black)		Cell 1390 (Hispanic)		Cell 1391 (Black)		Cell 1392 (Hispanic)	
47 labs		47 labs		46 labs		45 labs	
A*30	55%	A*03	53%	A*03	56%	A*02	58%
A*3002	32%	A*0301	36%	A*0301	33%	A*0201	33%
A*300201	13%	A*030101	9%	A*030101	9%	A*020101	7%
A*30	100% TOTAL	A*03010101	2%	A*03010101	2%	A*02010101	2%
		A*03	100% TOTAL	A*03	100% TOTAL	A*02	100% TOTAL
A*74	49%						
A*7401/02	11%	A*24	53%	A*66	26%	A*68	60%
A*7401	36%	A*2402	34%	A*6602	74%	A*6801	27%
A*7402	2%	A*240201	4%	A*66	100% TOTAL	A*680102	11%
A*74	98% TOTAL	A*24020101	9%			A*6823	2%
		A*24	100% TOTAL			A*68	100% TOTAL
47 labs		47 labs		46 labs		45 labs	
B*14	38%	B*07	66%	B*57	35%	B*39	56%
B*1402/09	13%	B*0702	28%	B*5703/17	13%	B*3901	38%
B*1402	34%	B*070201	6%	B*5703	39%	B*39010101	2%
B*140201	15%	B*07	100% TOTAL	B*570301	13%	B*3915	2%
B*14	100% TOTAL			B*57	100% TOTAL	B*39	98% TOTAL
		B*38	53%				
B*81	64%	B*3801	36%	B*58	50%	B*39	31%
B*8101	36%	B*380101	11%	B*5801	37%	B*3909	67%
B*81	100% TOTAL	B*38	100% TOTAL	B*580101	13%	B*39	98% TOTAL
				B*58	100% TOTAL		
46 labs		46 labs		44 labs		44 labs	
Cw*08	52%	Cw*07	53%	Cw*07	52%	Cw*07	55%
Cw*0802	33%	Cw*0702/50	4%	Cw*0701/06/18	5%	Cw*0702/50	4%
Cw*080201	13%	Cw*070201/50	4%	Cw*0701/18	5%	Cw*070201/50	4%
Cw*08	98% TOTAL	Cw*0702	35%	Cw*070101/18	2%	Cw*0702	30%
		Cw*070201	2%	Cw*0701	7%	Cw*070201	5%
Cw*08	41%	Cw*07020101	2%	Cw*0718	29%	Cw*07020101	2%
Cw*0804/13	16%	Cw*07	100% TOTAL	Cw*07	100% TOTAL	Cw*07	100% TOTAL
Cw*0804	41%						
Cw*0813	2%	Cw*12	46%				
Cw*08	100% TOTAL	Cw*1203	43%				
		Cw*120301	7%				
		Cw*12030101	4%				
		Cw*12	100% TOTAL				

```
         ****** CELL NO.1389 *************** CELL NO.1390  *************** CELL NO.1391  *************** CELL NO.1392  ******
              V                             V                             V                             V
              I              (BLCK)         I              (HISP)         I              (BLCK)         I              (HISP)
INVESTIGATOR  A A A B B C    B              A A A B B C    B B           A A A B B C    B              A A A B    C B
         DAYS B 3 7 1 8 W    W              B 3 2 7 3 W    W W           B 3 6 5 5 W    W              B 2 6 3    W W
    NAME  OLD % 0 4 4 1 8    6  OTHERS      %   4   8 7    4 6 OTHERS    %   6 7 8 7    4  OTHERS       %   8 9    7 6 OTHERS
         --------------------------------------------------------------------------------------------------------------------
Abbal,Michel  3  98 + + + +      +          98 + + + +      + +          95 + + +      +              95 + + +      + B14
Alonso,Anton  7  90 + +65 +      +          90 + + + +      + +          90 + + + +    +              90 + + +  + +
Alvarez,Carr  3 100 +  65 +      +  A11    100 + + + +      + +         100 +02 +      +             100 + + +    +
Anthony Nola  3  98 + + + +                 98 + + + +                  98 + + +17                   98 + + +
Berka,Noured  2  99 + +65 + +    +  CW5      99 + + + + +    + + CX12     99 +02 + + +  +              99 + + +  + +
Cecka,J.Mich  2  95 + +65 +      +           95 + + + +      + +          90 + + +      +              95 + + +    +
Chan MD,Soh   4  95   + +   +    +  A31,B7   90 + + + +      + +          95 +   + +    +  A33,B49      95 + + +  + +
Charron,D. P  3  98 + + + +                  98 + + + +                  98 + + +                      98 + + +      B14
Choo,Yoon MD  9  96 + +65 + +    +           96 + + + + +    + +          96 +02 +   +  +              96 + + +  + +
Claas,F.H.J.  6  90 + + + +      +  A31      90 + + + +      + +          90 + +17   +  +              90 +28 +  + +
Dunckley,Hea  9  99 19   +       +  B7       95 + + + +      + +          95 +1017      +              95 +28 +    +
Dunk,Arthur   2  98 + + + + +    +           98 + + + +      + +          98 +02 + + +  +              98 +28 +  + +
Dunn,Paul Dr  6  95 + +65 +      +           95 + + + +      + +          95 + + + +    +              95 + + +    + B64
Esteves Kond  2  98 + +65 + +    +           98 + + + +      + +          98 +02 + + +  +              98 + + +  + +
Fischer,Joha  6  98 + +65 +      +           98 + + + +      + +          98 + + + +    +              98 + + +    +
Gideoni,Osna  6 100 + +65 + +    +          100 + + + +      + +         100 + +17   +  +             100 +28 +  + +
Gomez,Carmen  2  98 + +65 + +    +           98 + + + +      + +          98 + + + +    +              98 + + +  + +
Gomez,Carmen  3  98 + +65 + +    +           98 + + + +      + +          98 + + + +    +              98 + + +  + +
Hahn,Amy B.   2  99 + +65 + +    +           99 + + + +      + +          99 +02 +   +  +              98 + + +  + + B64
Harville,Ter  2  98 + +65 + +    +           98 + + + + +    + +          98 +02 +   +  +              98 + + +  + +
Hirankarn MD  6  75 + + + +      +  B7       NT                           80 +   +      +  A34,B63     NT
Hogan,Patric  9  90 + +65 + +    +           90 + + + + +    + +          90 + + + +    +              90 +28 +  + +
Holdsworth,R  8  85 + + + +      +           90 + + + +      + +          80 + + + +    +  6602         90 +28 +    +
Hubbell,Char  3  95 + +65 +      +           95 + + + +      + +          95 +02 +      +  B51V         95 + + +    + B14
Israel,Shosh  5  95 + +65 + +    +           95 + + + +      + +          95 + + + +    +              95 + + +  + +
Keown,Paul M  6  95 + +65 +      +           95 + + + +      + +          90 + + +      +              95 +28 +    + B14
Klein,Tirza   6  90 + + +   +    +  B7       30 + + + +      + +          60 +10 +17    +              90 + + +    +
Kvam,Vonnett  3  90 + +65 + +    +  CW7      90 + + + +      + + CX12      98 +02   + +  +  B63          97 +28 +  + +
Lardy,N.M. D  6  90 + + + +      +           90 + + + +      + +          90 +   +      +  A34          90 +28 +  + +
Loewenthal M  9  NT                          90 + + + + +    + +          90 + +17   +  +              90 +28 +  + +
Lopez-Cepero  2  99 + +65 + +    +           99 + + + + +    + +          99 + + +17 +  +              99 + + +  + +
Mah,Helen     3  98 + +65 + +    +           98 + + + +      + +          98 +02 + + +  +              98 + + +  + +
McAlack,Robe  2  98 + +65 + +    +           97 + + + +      + +          97 +0217      +              97 + + +  + +
McAlack-Bala  2  98 + +65 + +    +           98 + + + +      + +          98 +0217 +    +              98 + + +  + +
McCluskey,Ja 10  90 + +65 + +    +           90 + + + +      + +          90 + + +   +  +  B63          90 +28 +  + +
Meyer,Pieter  8  85 + + +         B7         85 + + + + +                 80 +10 +   +                 85 + + +    + B50,CW1
Norin,Allen   2  98 + +65 +      +           99 + + + +      + +          99 + + +      +              99 + + +    +
Padua,Florec  4  95 + + + +                  98 + + + +                  99 +02 +         B63          99 + + +      B14
Pais,Maria L  9  99 + +65 +                  99 + + + +                   99 + + +                     99 + + +
Park,Myoung   6  85 + + + + +    +           85 + + + + +    + +          85 + + + + +  +              85 +28 +  + +
Permpikul,Ve  6  90 + + +        +  B7       90 + + + +      + +          90 +   +17    +  A34          85 + + +
Pidwell/Aska  2  95 + +65 + +    +           95 + + + +      + +          95 +02 +      +              95 + + +  + +
Pollack,Mari  2  99 + + + + +    +           99 + + + +      + +          99 + + +   +  +              99 + + +  + +
Rees,Tracey   6  80 + +65 + +    +           80 + + + + +    + +          80 +02 + + +  +              80 + + +  + +
Rosen-Bronso  2  95 + + + +                  95 + + + +                  95 + + + +                   95 + + +
Rubocki,Rona  3  99 + +65 + +    +           99 + + + + +    + +          99 +02 +17 +  +              99 +28 +  + +
Sauer,Gottwa  3  95 + +65 + +    +           95 + + + + +    + +          90 + + + + +  +             100 + + +  + +
Semana MD,Gi  3  90 + + + +      +           90 + + + +      + +          90 +1017      +              90 +28 +    + B14
Shai,Isaac    8  90 +   +        +  B60,A29,B7 100 + + + +    + +          90 +   +   +  +  A34          90 + + +  + + B35
Stamm,Luz     7  80 + +65 + +    +           80 + + + +      + + CX12      80 + + + + +  +              80 + + +  + +
```

```
                                        INTERNATIONAL CELL EXCHANGE

             ******   CELL NO.1389  ***************   CELL NO.1390  ***************   CELL NO.1391  ***************   CELL NO.1392  ******
             V                              V                              V                              V
             I        (BLCK)                I               (HISP)         I        (BLCK)                I               (HISP)
INVESTIGATOR A A A B B C  B                 A A A B B C  B B               A A A B B C  B                 A A A B  C  B
         DAYS B 3 7 1 8 W  W                B 3 2 7 3 W  W W               B 3 6 5 5 W  W                 B 2 6 3  W  W
    NAME  OLD % 0 4 4 1 8  6 OTHERS         % 4   8 7  4 6 OTHERS          % 6 7 8 7  4 OTHERS            % 8 9 7  6 OTHERS

-------------------------------------------------------------------------------------------------------------------------------------------
Stavropoulos 3  99 + + + + +  +              99 + + + + +  + +             99 + + + + +  +                99 +28 +  +     +
Tagliere,Jac 1 100 + +65 + +  +             100 + + + + +  + +            100 + + + + +  +               100 + + +  +     +
Tiercy,Jean- 6  60 + +   +    +              60 + + + +    + +             NT                             NT
Tilanus,Marc 7 ??? + + + +    +             ??? + + + +    + +            ??? + + +     +                ??? +28 +       +
Vidan-Jeras, 6 100 +   +      +  A32,B7     100 + + +      + +             95 +  17      +  A68            95 + + +       +
Walter Reed  3  98 + +65 + +  +              98 + + + + +  + +             98 + + +   +   +                98 + + +  +     +
Wisecarver,J 7  98 + + + +    +              98 + + + +    + +             98 + + +17    +                98 +28 +       +
```

```
                              ********************
                              *                  *
                              *  SUMMARY  TABLE   *
                              *                  *
                              ********************


          (BLCK)                    (HISP)                    (BLCK)                    (HISP)
    **** CELL 1389 ****        **** CELL 1390 ****        **** CELL 1391 ****        **** CELL 1392 ****
    (56 SAMPLES TYPED)         (56 SAMPLES TYPED)         (56 SAMPLES TYPED)         (55 SAMPLES TYPED)
     A30   96.4%                A3   100.0%                A3   100.0%                A2   100.0%
     A19    1.8%                                                                          (100.0%)
         ( 98.2%)              A24   100.0%               A66    53.6%
                                   (100.0%)               6602   28.6%                A68    69.1%
     A74   92.9%                                          A10     7.1%                A28    30.9%
         ( 92.9%)              B7   100.0%                    ( 89.3%)                    (100.0%)

     B14   41.1%               B38   100.0%               B57    83.9%                B39   100.0%
     B65   57.1%                   (100.0%)               B17    14.3%                    (100.0%)
         ( 98.2%)                                             ( 98.2%)
                               CW7   58.9%                                            CW7    63.6%
     B81   87.5%                                          B58    37.5%
         ( 87.5%)              BW4   89.3%                B17    10.7%                BW6    89.1%
                                                             ( 48.2%)
     CW8   51.8%               BW6   89.3%
                                                         CW7    58.9%
     BW6   89.3%
                                                         BW4    89.3%


       (OTHERS FOUND)             (OTHERS FOUND)             (OTHERS FOUND)             (OTHERS FOUND)
     B7    14.3%               CX12    5.4%               B63    7.1%                B14    10.9%
     A31    3.6%                                          A34    7.1%                B64     3.6%
     A29    1.8%                                          A68    1.8%                B35     1.8%
     B60    1.8%                                          B51V   1.8%                CW1     1.8%
     A11    1.8%                                          B49    1.8%                B50     1.8%
     CW7    1.8%                                          A33    1.8%
     A32    1.8%                                          6602   1.8%
     CW5    1.8%
```