

# REPORT OF THE 356th CELL EXCHANGE

**APRIL 6, 2011**

|             |           |
|-------------|-----------|
| B-cell Line | 451-452   |
| DNA Extract | 509-512   |
| Cells       | 1421-1424 |

## B-cell line Exchange

We wish to acknowledge the generosity of **Helen Bass, Jane Rowlands, and Tracey Rees, Welsh Blood Service, Pontyclun**, in sharing their

**TER-451.** This cell from a Caucasian donor was UBM12218693, the reference cell for the rare DRB1\*15:07. Hahn, Mah, Stamm, and Sutton were correct in identifying this cell as being previously typed in the Cell Exchange as TER-291 (2001) and TER-371 (2006).

In this present retyping, DRB1\*15:07 was assigned by 69%. According to Darke et al. (1), DRB1\*15:07 differs from DRB1\*15:01 "...by a single nucleotide at position 127 encoding an amino acid substitution of phenylalanine to tyrosine at codon 47."

DR15 was well detected, by 100%.

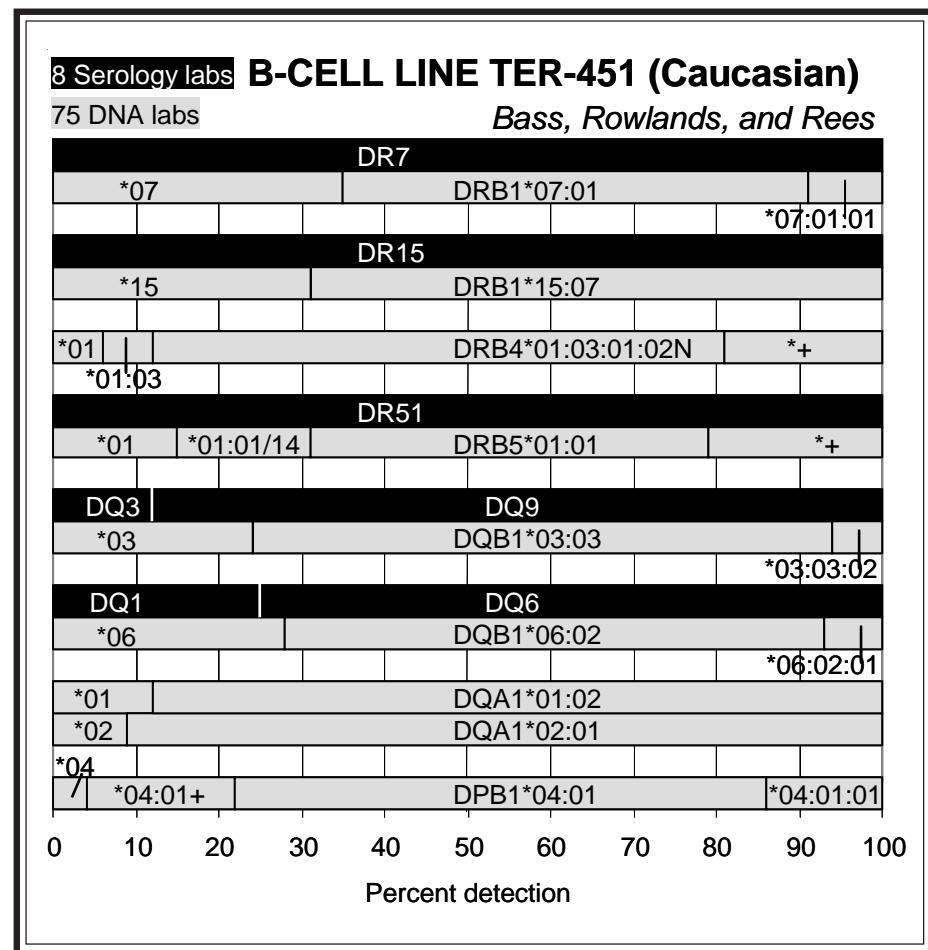
DPB1\*04:01 (\*04:01:01) was the sole DPB1 allele.

The probable haplotypes were DRB1\*15:07-DRB5\*01:01-DQB1\*06:02-DQA1\*01:02-DPB1\*04:01 and DRB1\*07:01-DRB4\*01:03:01:02N-DQB1\*03:03-DQA1\*02:01-DPB1\*04:01.

DPA1\*01:03 was assigned by J.Lee. In the 2006 typing, DPA1\*01:03/07 was reported by Darke.

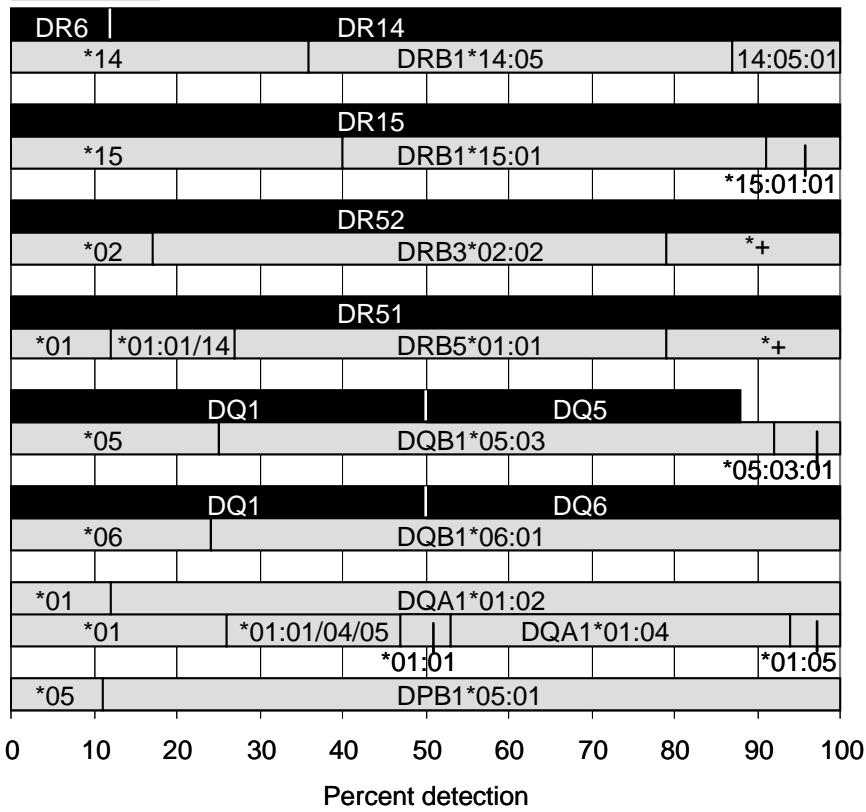
Darke et al. provided the class I typing as A\*03:01:01, A\*26:01, B\*57:01, B\*27:05:02, C\*06:02, C\*07:04/11/12. The investigators postulated that A\*26:01-B\*27:05:02-C\*07:04/11/12 would likely be on the same haplotype with the rare DRB1\*15 variant.

interesting cells to study in our exchange studies.



## 8 Serology labs B-CELL LINE TER-452 (Chinese)

75 DNA labs



**TER-452.** This Chinese cell was APA, the reference cell for A\*24:03:01, B\*15:02:01, and B\*55:02:01. It was studied in the workshops as IHW#9237 and has served as a valuable reference standard in the Cell Exchange for class I, typed as extract 61 (1998) and 258 (2003), and for class II, typed as TER-224 (1998).

This cell was the first DRB1\*14:05 to be typed in the Cell Exchange. In this present retying, DRB1\*14:05 was assigned by 63%.

DR14 was reported by 88%.

Few labs had trouble in detecting DQA1\*01:02 (88%). The second DQA1 allele was assigned by 41% to be DQA1\*01:04; however, DQA1\*01:01 (6%) and DQA1\*01:05 (6%) were also reported. DQA1\*01:01/01 and DQA1\*01:02/01 are listed for this cell on the IMGT-HLA web site

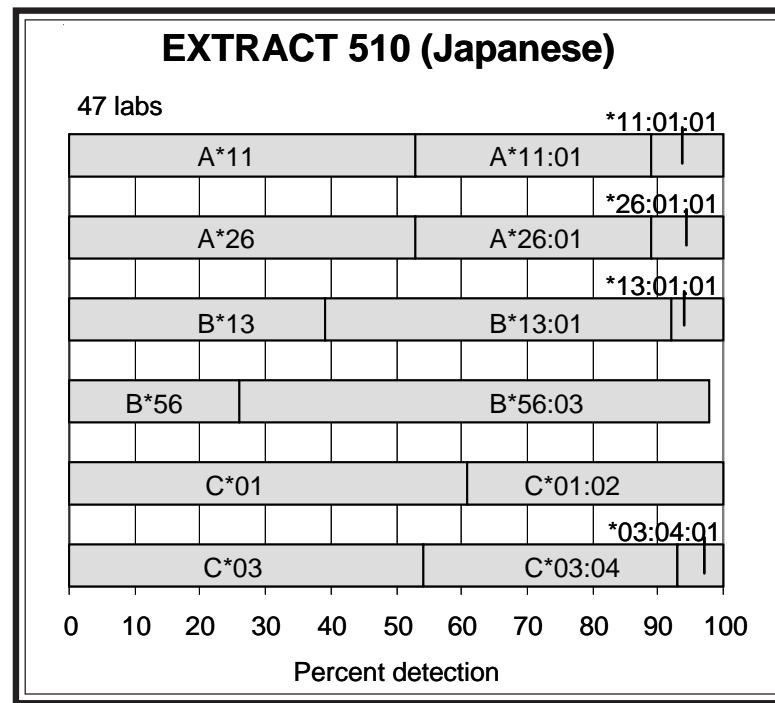
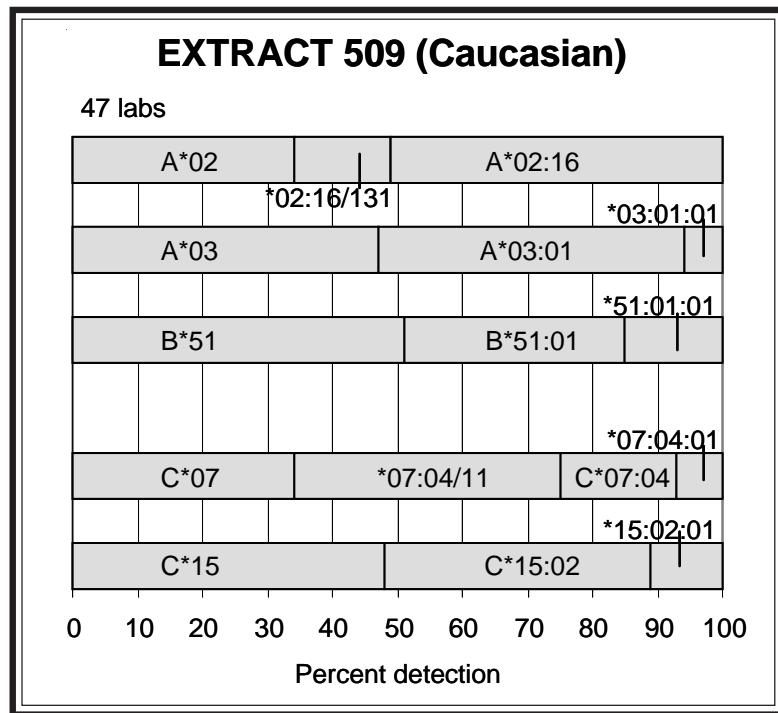
DPA1\*02:02 was reported by J.Lee.

The probable haplotypes were DRB1\*14:05-DRB3\*02:02-DQB1\*05:03-DQA1\*01:04 and DRB1\*15:01-DRB5\*01:01-DQB1\*06:01-DQA1\*01:02. The NMDP Bioinformatics web site indicates that in Asians, DRB1\*15:01 is found with either DQB1\*06:01 (HF=0.03512) or DQB1\*06:02 (HF=0.04279), whereas DRB1\*15:01-DQB1\*06:02 is commonly found in all other populations. This cell remains the sole DRB1\*15:01-DQB1\*06:01 exchange cell; all other DRB1\*15:01 exchange cells were found in association with DQB1\*06:02.

DPB1\*05:01 (89%) was the sole DPB1 type.

The class I typing for this Chinese donor was A\*11:01, A\*24:03, B\*15:02, B\*55:02, C\*08:01, C\*12:03.

## Extract Exchange



**Extract 509.** This Caucasian cell was TUBO, the reference cell for the rare A\*02:16, as correctly identified by Chen. This cell was also typed in the workshops as IHW#9045. Barouch et al. (2) described A\*02:16 as most similar to A\*02:01, "...except for two nucleotide differences at positions 216 and 217 of exon 3 (GA instead of AC). The sequence causes a single amino acid substitution of glutamic acid (in A\*0216) instead of threonine (in A\*0201) at residue 163 in the alpha 2 domain." This was the first time that A\*02:16 was typed in the Cell Exchange.

A\*02:16 was detected by 50%. Another 15% assigned A\*02:16/131, which may be explained by the fact that both A\*02:16 and A\*02:131 have E at codon 163 whereas the majority of A\*02 alleles have T.

A\*03:01 (51%) was the second A-locus allele.

B\*51:01 was the sole B-locus type, as assigned by 48%.

C\*07:04 (25%) and C\*15:02 (51%) were the C-locus alleles.

**Extract 510.** B\*56:03 was detected by 74% in this cell from a Japanese donor. This rare B\*56 allele was previously typed in extracts 371 (Asian) and 440 (also extract 319). The data for 17 NMDP cells listed in the HLA dictionary indicated that this variant reacts as a short B56 (3).

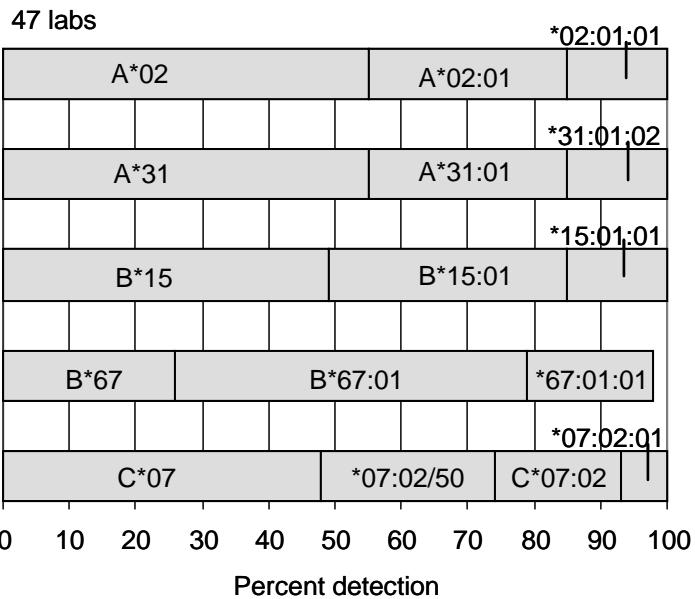
B\*13:01 was reported by 60% as the second B-locus allele.

A\*11:01 (46%) and A\*26:01 (48%) were the A-locus types.

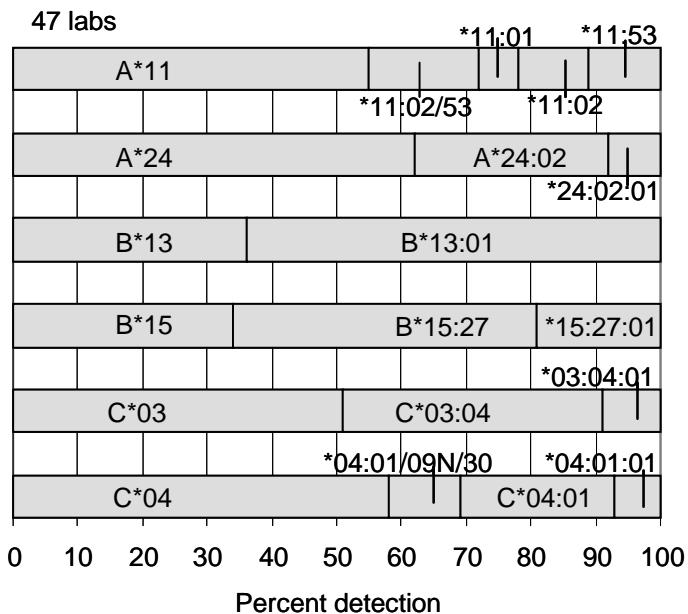
The C-locus alleles were C\*01:02 (38%) and C\*03:04 (44%).

The likely associations in this cell were B\*13:01-C\*03:04 and B\*56:03-C\*01:02. Both previous B\*56:03 donors had the same B\*56:03-C\*01:02 association.

## EXTRACT 511 (Japanese)



## EXTRACT 512 (Chinese)



**Extract 511.** This Japanese cell was previously typed as extracts 88 (1999) and 195 (2002), as correctly noted by Stamm and Sutton.

In this present retyping, B\*67:01 was assigned by 73%.

B\*15:01 (50%) was reported by half of the labs as the second B-locus allele.

A\*02:01 and A\*31:01, assigned by 44%, were present in this cell.

B\*67:01-C\*07:02 and B\*15:01-C\*07:02 are found in Asians.

This same cell was also typed for class II as TER-240 (1999) and TER-313 (2002) as: DRB1\*14:03, DRB1\*14:06, DRB3\*01:01, DRB3\*02:02, DQB1\*03:01, DQA1\*05:03, DPB1\*02:01, DPB1\*05:01.

**Extract 512.** This Chinese donor was studied as cell 1399 last year. There was no clear-cut agreement for which A\*11 allele was present, with assignments of A\*11:02 (20%), A\*11:01 (8%), and A\*11:53 (7%). The final report (4) provided the typing strategies of the 3 sequencing labs (Brown,

Claas, Tilanus) that assigned A\*11:53, to resolve ambiguities beyond exons 2 and 3, involving A\*11:01, A\*11:02:01, A\*11:02:02, and A\*11:02:03, with A\*24:02:01:01 being the second A-locus allele. Roelen and Claas also shared their SBT raw data.

In this present retyping, there was again no definite resolution of the A\*11 subtype, as A\*11:02 (12%), A\*11:53 (10%), and A\*11:01 (6%) were reported. Another 17% assigned A\*11:02/53.

A\*24:02 (37%) was the second A-locus allele.

B\*15:27 was assigned by 65%. B\*15:27 was previously typed in cell 1062 from a Chinese donor and cell 1298 from a Korean individual. The serologic expression of this allele is B62, as assigned by 93% for this cell in 2010.

B\*13:01 (62%) was the second B-locus allele.

C\*03:04 (48%) and C\*04:01 (30%) were the C-locus types.

B\*1301-C\*0304 and B\*1527-C\*0401, found predominantly in Asian populations, were the probable associations.

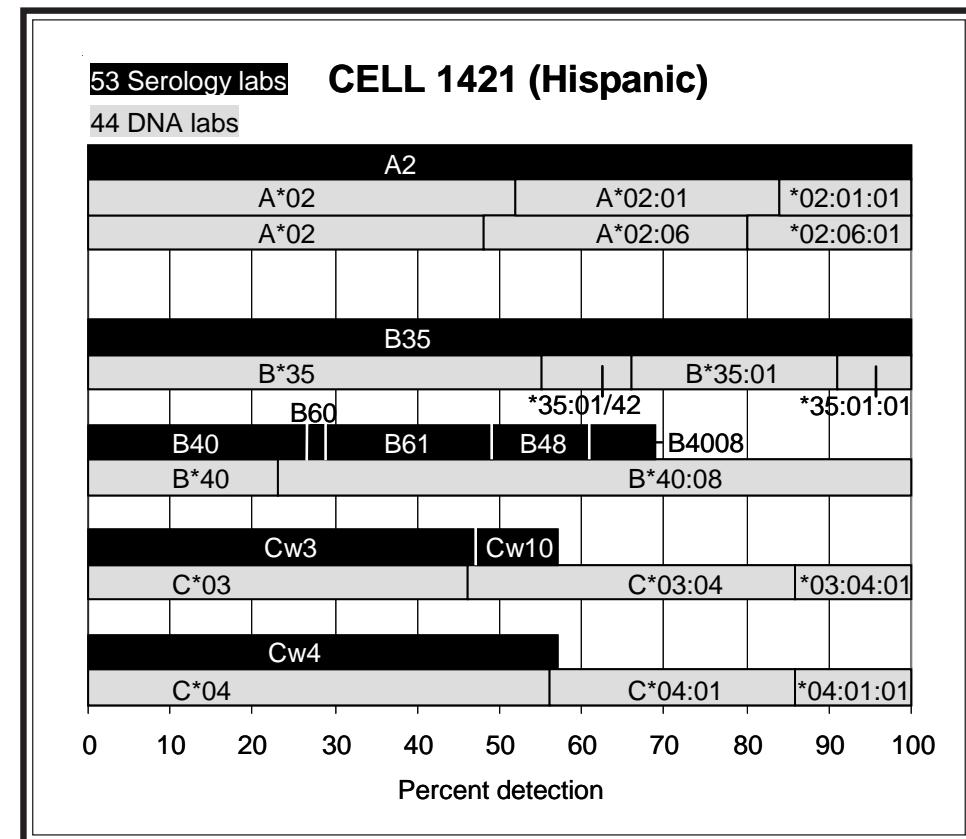
## Cell Exchange

**Cell 1421.** A shorter than normal B40 variant was detected in this cell from an Hispanic donor. B40 (28%), B61 (21%), B48 (11%), B4008 (8%), and B60 (2%) were reported and comments of short anti-B40 and anti-B48 reactivity were given by a number of labs, including Askar, Claas, Dunk, Dunn, Harville, Holdsworth, Israel, Keown, Mah, McCluskey, Pancoska, Pollack, Rees, Rubocki, Semana, Shai, Stamm, and Tiercy. DNA results resolved that B\*40:08 (77%) was present. This same B40 variant was previously typed in cells 992 (also cell 969), 1061, 1101, 1411 (also cell 1321), all from Hispanic donors.

B35 was assigned in unanimous consensus, confirmed as B\*35:01 (34%).

A2 (100%) was well typed; A\*02:01 (48%) and A\*02:06 (52%) were defined.

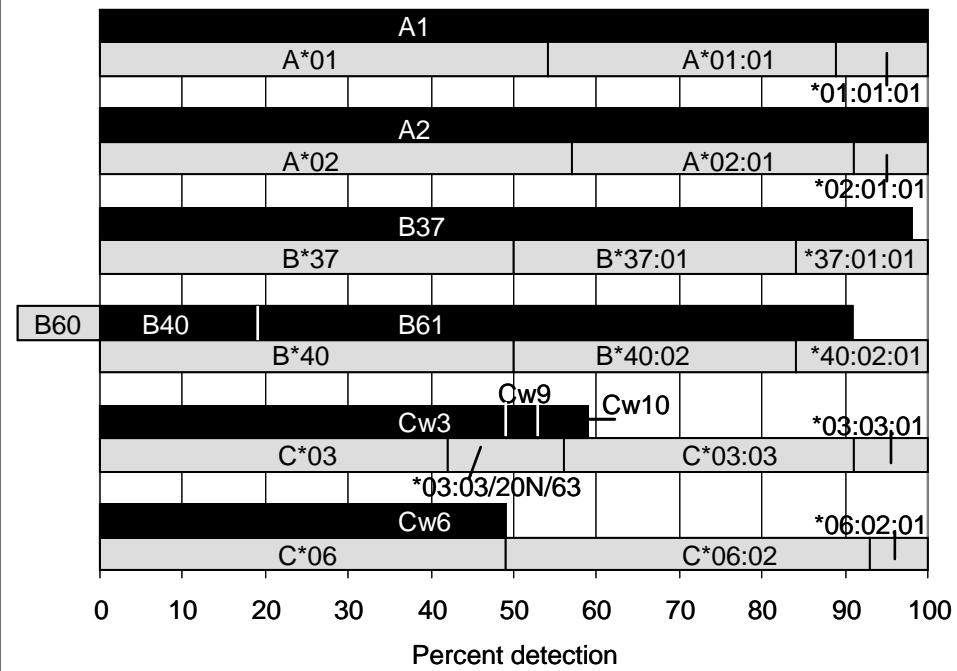
Cw3 (57%) and Cw4 (57%) were established as C\*03:04 (54%) and C\*04:01 (44%), respectively. B\*35:01-C\*04:01 and B\*40:08-C\*03:04 were the likely associations; B\*40:08-C\*03:04 was found in all previous B\*40:08 donors.



53 Serology labs

## CELL 1422 (Korean)

44 DNA labs



**Cell 1422.** In contrast to the short B40 variant detected in cell 1421, the standard B61 (70%), confirmed as B\*40:02 (50%), was present in this Korean cell.

B37 (98%) was well detected, corroborated as B\*37:01 (50%).

The C-locus antigens were Cw3 (59%) and Cw6 (49%). The C-locus alleles were C\*03:03 (44%) and C\*06:02 (51%).

B\*37:01 is found in strong association with C\*06:02 in all ethnic populations. In Asians, the frequency for B\*37:01-C\*06:02 is 0.01443.

The haplotypes in this cell may be A\*02:01-B\*40:02-C\*03:03 and A\*01:01g-B\*37:01-C\*06:02 (HF=0.00973).

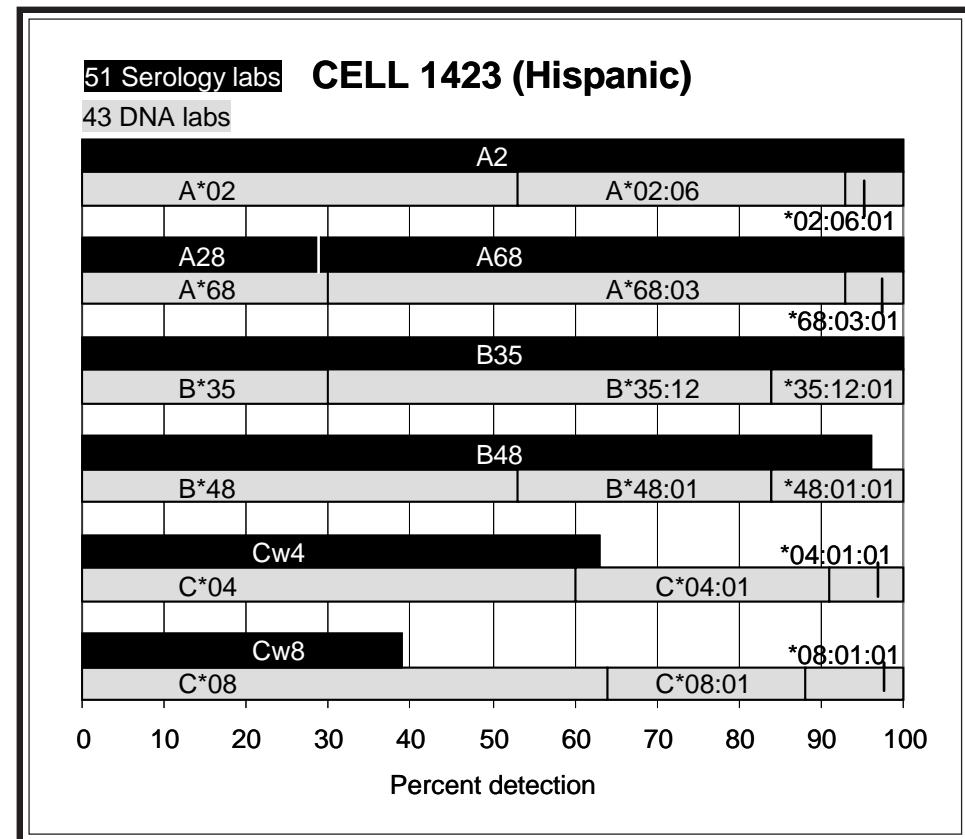
**Cell 1423.** This Hispanic donor was previously typed as cells 1316 (2007) and 1322 (2008), as noted by Askar, Lopez-Cepero, Mah, Pancoska, Stamm, and Walter Reed AMC.

A2 and A28 were assigned in complete agreement. The percent detection level for A68 increased since 2008, from 60% to 73%. A\*02:06 (47%) and A\*68:03 (70%) were the A-locus alleles. The detection rate increased for A\*68:03, from 60% in 2008 to the present 70%.

B35 (100%) and B48 (92%) were well typed, and verified as B\*35:12 (70%) and B\*48:01 (47%), respectively.

The C-locus antigens were Cw4 (63%) and Cw8 (37%), confirmed as C\*04:01 (40%) and C\*08:01 (36%), respectively.

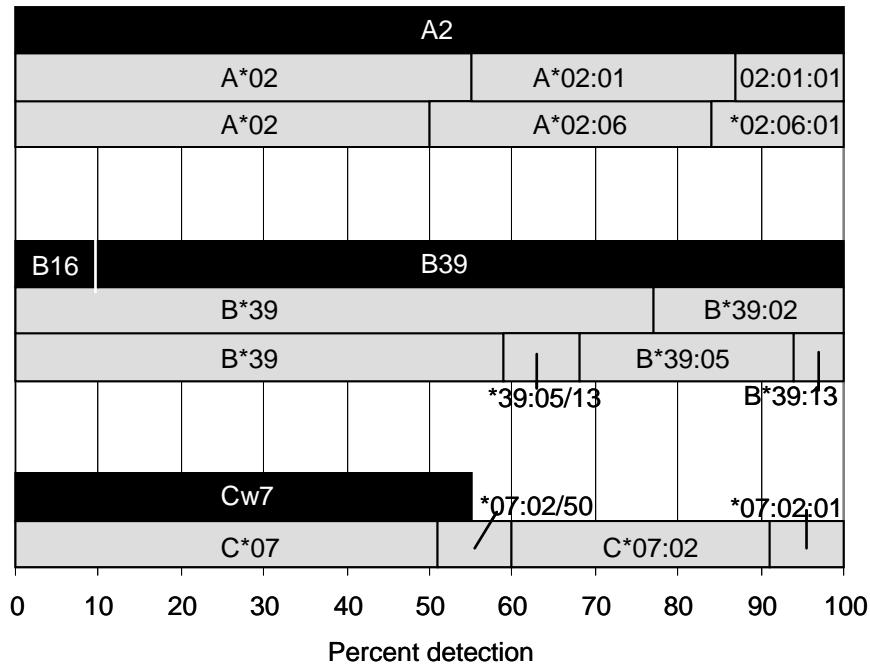
Two strong associations, B35-Cw4 and B48-Cw8, that is, B\*35:12-C\*04:01 and B\*48:01-C\*08:01, were present in this cell.



51 Serology labs

## CELL 1424 (Hispanic)

44 DNA labs



**Cell 1424.** This cell from an Hispanic individual was previously typed as cell 1263 in 2006, as correctly identified by Lopez-Cepero, Mah, McCluskey, and Stamm.

Serologically, this cell was well typed as A2-B39-Cw7 homozygous.

There was no question that 2 different B\*39 alleles were present. In the 2006 typing, 7 labs reported B\*39:02, B\*39:05 and 6 labs assigned B\*39:01, B\*39:13. In this present retyping, 10 labs (Askar, Ellis, Mayr and Fischer, Hanau, Kamoun, Kim, Klein, Semana, Tilanus, Turner) assigned B\*39:02,

B\*39:05. Furthermore, Askar, Tilanus, and Turner reported B\*39:02:02, B\*39:05:01. Two labs (Charlton, Claas) assigned B\*39:01, B\*39:13 and 2 labs (Colombe, Rees) did not resolve between the 2 combinations of B\*39 alleles. Overall, B\*39:05 (26%), B\*39:02 (23%), B\*39:05/13 (9%), B\*39:13 (6%), B\*39:01 (4%), and B\*39:30 (2%) were assigned.

A\*02:01 (45%) and A\*02:06 (50%) were present.

Cw7 (55%) was confirmed as C\*07:02 (40%).

A\*02:06-B\*39:05-C\*07:02 (HF=0.00660) is a commonly found haplotype in Hispanics, and was typed in cells 1022, 1203, and 1406, as well as in extract 398. The other possible haplotype, A\*02:01-B\*39:02-C\*07:02 was found in exchange cells 1032, 1205, and 1207.

## References

1. Darke C, Guttridge MG, Street J, Thompson J, and Thomas M. Molecular, serological and genetic studies on two new HLA-DRB1 alleles - HLA-DRB1\*0704 and HLA-DR1\*1507. *Tissue Antigens* 2000;56:467.
2. Barouch D, Krausa P, Bodmer J, et al. Identification of a novel HLA-A2 subtype, HLA-A\*0216. *Immunogenetics* 1995;41:388.
3. 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.
4. Lau M, Locke A, Cecka JM, and Reed EF. Report of the 350<sup>th</sup> Cell Exchange, June 9, 2010; 9.

**NEXT MAILING DATE: May 4, 2011**

Marie Lau, Arlene Locke, J. Michael Cecka, and Elaine F. Reed

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| NAME                 | CITY STATE/COUNTRY | NAME                 | CITY STATE/COUNTRY | NAME                  | CITY STATE/COUNTRY |
|----------------------|--------------------|----------------------|--------------------|-----------------------|--------------------|
| (W.H.O. LABS)        |                    | Graff,Dr Ralph J.    | St Louis MO        | Norin,Dr Allen        | Brooklyn NY        |
| Fischer & Mayr,Drs   | Vienna             | Hahn PhD,Amy B.      | Albany NY          | Olerup,Olle           | Saltsjobaden       |
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| Chan MD,Prof Soh Ha  | Singapore          | Israel_LR,           | Jerusalem          | Reed PhD,Elaine F.    | Los Angeles CA     |
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| Chen,Dr Dong-Feng    | Durham NC          | Kamoun MD,Malek      | Philadelphia PA    | Reinsmoen PhD,Nancy   | Los Angeles CA     |
| Claas,Prof F.H.J.    | Leiden             | Kanangat PhD,Siva    | Chicago IL         | Roberts,Chrissy H.    | London England     |
| Clark,Dr Brendan     | Leeds England      | Kato MD,Shunichi     | Isehara,Kanaga     | Rosen-Bronson PhD,Sa  | Washington DC      |
| Cohen,Prof JHM       | Reims Cedex        | Keown MD,Paul        | Vancouver BC       | Rost & Klein,Drs      | Martinsried        |
| Colombe PhD,Beth W.  | Philadelphia PA    | Kihara,Masaaki       | Tokyo              | Rubocki PhD,Ronald    | Scarborough ME     |
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| Danilovs PhD,John    | Phoenix AZ         | Koh MD,Eun-mi        | Seoul              | Senitzer PhD,David    | Duarte CA          |
| del Pozo,Dr Ana      | Buenos Aires       | KuKuruga PhD,Debra   | Baltimore MD       | Shai,Isaac            | Medunsa            |
| Dhaliwal,J.S.        | Kuala Lumpur       | Kusnierczyk PhD,Piot | Wroclaw            | Shanmugam,Dr Hemalat  | Kuala Lumpur       |
| Dinauer,David        | Brown Deer WI      | Kvam,Vonnnett        | Waukesha WI        | Stamm,Luz             | Calgary AB         |
| Du PhD,Keming        | Shanghai           | Kwok,Dr Janette      |                    | Stastny MD,Peter      | Dallas TX          |
| Dunk,Arthur          | Lauderhill FL      | Land,Dr Geoffrey A.  | Houston TX         | Stavropoulos,Maria    | New Haven CT       |
| Dunn,Dr Dale         | Lubbock TX         | Lardy,Dr N.M.        | Amsterdam          | Suciuc-Foca PhD,Nicol | New York NY        |
| Dunn,Dr Paul         | Auckland           | Lee PhD,Kyung Wha    | Anyang,Kyungki     | Sutton,Maggie         | Oxford England     |
| Eckels/CPMC,         | San Francisco CA   | Lee,Dr Jar-How       | Canoga Park CA     | Tagliere,Jacque       | Los Angeles CA     |
| Eckels/Utah,         | Salt Lake City UT  | Lim MD,Young Ae      | Suwon              | Tambur,Anat           | Chicago IL         |
| Elkhalifa MD PhD,Moh | Riyadh             | Linke,Robert         | Stamford CT        | Tavoularis,Dr Sofia   | Ottawa ON          |
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| Enczmann,Dr J.       | Dusseldorf         | Loewenthal MD PhD,Ro | Tel-Hashomer       | Tiercy,Dr Jean-Marie  | Geneva 14          |
| Endres,Dr Robert O.  | Tempe AZ           | Lopez-Cepero PhD,May | Tampa FL           | Tilanus,Prof Marcel   | Maastricht         |
| Esteves Kondo,Debra  | Canoga Park CA     | MacCann,Eileen       | Providence RI      | Trachtenberg PhD,Eli  | Oakland CA         |
| Esteves-Kondo,Debra  | Canoga Park CA     | Mah,Helen            | Boston MA          | Trowsdale,Prof John   | Cambridge          |
| Fagoaga,Dr Omar      | Detroit MI         | Maha PhD,George      | Burlington NC      | Turner PhD,E.V.       | Memphis TN         |
| Fernandez-Vina & Can | Houston TX         | Mani,Dr Rama         | Chennai,Tamil      | Tyan,Dr Dolly         | Palo Alto CA       |
| Fort,Dr Marylise     | Toulouse Cedex     | Marino,Susana R.     | Chicago IL         | Uhrberg,Dr Markus     | Dusseldorf         |
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| Gandhi MD,Manish     | Rochester MN       | Masuo,Kiyoe          | Tokyo              | Vidan-Jeras,Blanka    | Ljubljana          |
| Gardiner PhD,Clair M | Dublin             | McAlack-Hanau,       | Philadelphia PA    | Vilches,Dr Carlos     | Madrid             |
| Gautreaux,Dr Michael | Winston-Salem NC   | McCluskey,Prof James | Adelaide, So A     | Walter Reed Army Med  | Washington DC      |
| Geier,Dr Steven      | Philadelphia PA    | McIntyre PhD,John A. | Beech Grove IN     | Watkins PhD,David I.  | Madison WI         |
|                      |                    | Meyer,Pieter Wa      | Pretoria, Gaut     | Watson,Narelle        | Sydney NSW         |
|                      |                    |                      |                    | Wisecarver MD PhD,Ja  | Omaha NE           |

|                      |         |    |                      |              |    |                    |                |
|----------------------|---------|----|----------------------|--------------|----|--------------------|----------------|
| Gideoni,Osnat        | Haifa   |    | Mpuntsha,Dr Loyiso   | Johannesburg |    | Witt,Campbell      | Perth - West A |
| Gideoni_LR,          | Haifa   |    | Muncher,Dr Liora     | Rehovot      |    | Yu,Dr Neng         | Dedham MA      |
| Gladman/Pellet,Polla | Toronto | ON | Muncher_LR,          | Rehovot      |    | Yu,Dr Neng         | Worcester MA   |
| Gomez,Carmen         | Miami   | FL | Mytilineos MD,Joanni | Ulm          |    | Zachary PhD,Andrea | Baltimore MD   |
| Gomez,Carmen         | Miami   | FL | Nelson PhD,Karen     | Seattle      | WA | Zeevi PhD,Adriana  | Pittsburgh PA  |
| Gottwald & Hess,     | Lich    |    | Noreen,Harriet       | Minneapolis  | MN |                    |                |

## B-CELL LINE TER-451

| CTR DIRNAME          | DRB1         | DRB1X      | DRB4          | DRB5      | DQB1        | DQB1X      | DQA1      | DQA1X  | DPB1           | METHOD       |
|----------------------|--------------|------------|---------------|-----------|-------------|------------|-----------|--------|----------------|--------------|
| 5488 Adams,Sharon    | *0701        | *1507      | *01030102N    | *0101/14  | *0303       | *0602      | *0102     | *0201  | *040101        | RSSO,SBT,SSP |
| 4691 Ajlan,Abdula    | *07          | *15        |               |           | *03         | *06        |           |        |                | SSO          |
| 5133 Baker,Judy      | *07:01       | *15:07     | *01:03N       | *01:01/14 | *03:03      | *06:02     | *01:02    | *02:01 |                | SSO          |
| 774 Cecka,J.Mich     | *07:01/13-17 | *15:07     | *01:03:01:02N | *01:01    | *03:03      | *06:02/33+ | *01:02    | *02:01 |                | SSP,SSOP     |
| 785 Chan,Soh Ha      | *0701/09     | *1501/03   | *0103         | NT        | *0303/12/15 | *0602/14   | *0102     | *0201  |                | SBT          |
| 5232 Charlton,Ron    | *07:01       | *15:07     | *01:03N       | *01:01    | *03:03      | *06:02     |           |        |                | RVSSO,SSP    |
| 4492 Charron,D.      | *07:01/19    | *15:07     | *01:03:01:02N | *01:01    | *03:03      | *06:02/20+ | *01:02    | *02:01 | *04:01/*128:01 | P-SSO,SSP    |
| 8021 Clark,Brenda    | *07:01       | *15:07     | *01:03:01:02N | *01/*02   | *03:03      | *06:02     |           |        | *04:01         | P-SSP,SSO    |
| 3632 Colombe,Beth    | *07:01       | *15:07     | *01:03N       | *01:01    | *03:03      | *06:02     | *01:02    | *02:01 |                | SSP          |
| 5130 Costeas,Paul    | *07:01       | *15:07     | *01:03:01:02N | *01:01    | *03:03      | *06:02     | *01:02    | *02:01 |                | SSO,SSP      |
| 779 Daniel,Claud     | *07          | *15        | *01:03:01:02N | *+        | *03(DQ9)    | *06        |           |        |                | P-SSP        |
| 5219 Daniel,Dolly    | *07          | *15        | *+            | *+        | *03         | *06        |           |        |                | P-SSOP       |
| 8052 Del Pozo,Ana    | *07          | *15:06/07+ |               |           | *0303       | *0602      | *0102     | *0201  |                | P-SSO        |
| 5323 Dhalialiwal,J.S | *07:01       | *15:07     | *01           | *01       | *03         | *06        |           |        |                | P-SSP,SSO    |
| 5891 Du,Keming       | *0701        | *1507      |               |           | *0303       | *0602      |           |        |                | P-SBT        |
| 5214 Eckels/CPMC     | *07          | *15        | *0103N        | *01       | *0303       | *0602      | *0102     | *0201  | *0401          | SSO          |
| 2332 Elkhalifa,Mo    | *07:01       | *15:07     |               |           | *03:03      | *06:02     |           |        |                | RVSSO        |
| 4251 Ellis,Thomas    | *07:01       | *15:07     | *01:01/03/06  | *01:01    | *03:03      | *06:02     | *01       | *02    | *04:01         | P-SSO,SEQ    |
| 3135 Enczmann,J.     | *07:01       | *15:07     | *01:03N       | *01:01    | *03:03      | *06:02     |           |        | *04:01         | SBT,P-SSP    |
| 762 Fischer/Mayr     | *07:01       | *15:07     | *01:03N       | *01:01    | *03:03      | *06:02     | *01:02    | *02:01 | *04:01         | SSO,SSP,SBT  |
| 4079 Fort,Marylis    | *07:01       | *15:07     |               |           | *03:03      | *06:02     |           |        |                | P-SSP,SSO    |
| 792 Gandhi,Manis     | *07:01       | *15:07     | *01:03N       | *01:01    | *03:03      | *06:02     | *01:02    | *02:01 |                | SSO,SSP      |
| 8043 Gideoni,Osnra   | *07:01       | *15:07     |               |           | *03:03      | *06:02     | *01:02    | *02:01 |                | SSP          |
| 9002 Gideoni_LR      | *07          | *15        |               |           | *03         | *06        |           |        |                | SSOP,SSP     |
| 234 Gomez,Carmen     | *07          | *15        | *+            | *+        | *03         | *06        |           |        |                | SSOP         |
| 5195 Gomez,Carmen    | *0701        | *15        | *0103N        | *01       | *0303       | *0602      | *0102     | *0201  |                | SSOP         |
| 1694 Gottwald&Hes    | *07:01       | *15:07     |               |           | *03:03      | *06:02     |           |        |                | SSP          |
| 910 Hahn,Amy B.      | *07:01/11+   | *15:07     | *01:03:01:02N | *01:01    | *03:03      | *06:02/33+ |           |        |                | SSP          |
| 810 Hamdi,Nuha       | *07:01       | *15:06     |               |           | *03:03      | *06:02     | *01:02    | *02:01 |                | SSO          |
| 4269 Hanau,Daniel    | *07:01:01    | *15:07     | *01:03        | *01:01    | *03:03      | *06:02     | *01:02    | *02:01 | *04:01/*128:01 | SSP,SBT      |
| 1461 Hidajat,M.      | *07:01       | *15:07     | *01:03:01:02N | *01:01    | *03:03      | *06:02     |           |        | *04:01         | SSO,SSP      |
| 2344 Hurley/Hartz    | *07:01:01:01 | *15:07     |               |           | *03:03:02   | *06:02:01  |           |        | *04:01:01      | SBT          |
| 771 Israel,Shosh     | *07:01       | *15:07     |               |           | *03:03      | *06:02     |           |        |                | P-SSP        |
| 9003 Israel_LR       | *07          | *15        |               |           | *03         | *06        |           |        |                | P-SSOP       |
| 794 Jaatinen,Tai     | *07:01       | *15:07     | *01:03N       | *01:01    | *03:03      | *06:02     |           |        | *04:01         | SBT,SSO,SSP  |
| 859 Kamoun,Malek     | *07:01       | *15:07     | *01:03:01:02N | *01:01/14 | *03:03      | *06:02     | *01:02    | *02:01 |                | SBT,SSP,SSO  |
| 797 Kato,Shunich     | *07:01       | *15:07     |               |           | *03:03      | *06:02     | *01:02    | *02:01 |                | SSO,+SBT-DR  |
| 4337 Kim,Tai-Gyu     | *0701        | *1507      |               |           | *0303       | *0602      |           |        | *0401          | SBT          |
| 168 Klein,Tirza      | *07:01       | *15:07     |               |           | *03:03      | *06:02     |           |        |                | P-SSP,SSO    |
| 5096 Koh,Eun-mi      | *07          | *15        |               |           |             |            |           |        |                | SSOP         |
| 87 Land,Geoffre      | *0701        | *1507      | *0103N        | *0101     | *0303       | *0602      | *0102     | *0201  | *0401          | SSO,SBT,SSP  |
| 725 Lardy,N.M.       | *07          | *15        | *+            | *+        | *03         | *06        | *01:02    | *02:01 |                | SSO,SSP      |
| 278 Lee,Jar-How      | *07:01       | *15:07     | *01:03:01:02N | *01:01    | *03:03      | *06:02     | *01:02    | *02:01 | *04:01         | SSP,RVSSOP   |
| 640 Lee,Kyung Wh     | *07:01       | *15:07     |               |           | *03:03:02   | *06:02:01  | *01:02:01 | *02:01 |                | P-SBT        |
| 6649 Lim,Young Ae    | *07          | *15        | *+            | *+        |             |            |           |        |                | SSP          |
| 274 Lo,Raymundo      | *07          | *15        | *+            | *+        | *03         | *06        |           |        |                | SSP          |
| 731 Loewenthal,R     | *07:01       | *15:07     |               |           | *03:03      | *06        |           |        |                | SSO,SBT      |
| 759 Lopez-Cepero     | *07:01/03+   | *15:06/07+ |               |           | *03:03      | *06:02     | *01:02    | *02:01 | *04:01         | RVSSO        |
| 23 Mah,Helen         | *07:01       | *15:07     | *01:03:01:02N | *01:01/14 | *03:03      | *06:02     | *01:02    | *02:01 | *04:01         | SSO,SSP      |
| 8029 Mani,Rama       | *07          | *15        | *+            | *+        |             |            |           |        |                | P-SSP        |
| 206 McAlack-Hana     | *07          | *15        | *01           | *01       | *03(DQ9)    | *06        |           |        |                | RVSSOP       |
| 9916 McIntyre,Joh    | *07:01:01    | *15:07     | *01:03:01:02N | *01:01:01 | *03:03      | *06:02     |           |        |                | SBT,SSP      |
| 8042 Muncher,Lior    | *07:01       | *15:07     |               |           | *03:03      | *06:02     |           |        |                | SSP,SSOP     |
| 9001 Muncher_LR      | *07          | *15        |               |           | *03         | *06        |           |        |                | SSOP,SSP     |
| 3648 Pereira,Noem    | *07:01       | *15:07     |               |           | *03:03      | *06:02     | *01       | *02    |                | RVSSO,SBT    |
| 3966 Permpikul&Ve    | *07:01       | *15:07     | *01:03        | *01:01    | *03:03      | *06:02     |           |        |                | P-SSP        |
| 2400 Phelan,Donna    | *07:01       | *15:07     | *01:03N       | *01:01    | *03:03      | *06:02     | *01:02    | *02:01 | *04:01         | RSSO,SBT,SSP |

B-CELL LINE TER-451

| CTR DIRNAME       | DRB1         | DRB1X      | DRB4          | DRB5       | DQB1         | DQB1X      | DQA1      | DQA1X  | DPB1            | METHOD       |
|-------------------|--------------|------------|---------------|------------|--------------|------------|-----------|--------|-----------------|--------------|
| 735 Ramon,Daniel  | *07:01       | *15:07     | *01:03:01:02N | *01:01/14  | *03:03       | *06:02     | *01:02    | *02:01 | *04:01/*120:01N | SBT,SSP,RSSO |
| 8001 Rao,Prakash  | *07:01/15-17 | *15:07     | *01:03N       | *01:01/14  | *03:03       | *06:02     |           |        | *04:01          | RVSSOP,SSP   |
| 3753 Reed,Elaine  | *0701        | *1507      | *0103N        | *0101/14   | *0303        | *0602      | *0102     | *0201  |                 | SBT,SSO      |
| 3798 Reinsmoen,N  | *07:01:01    | *15:07     | *01:03N       | *01:01/14  | *03:03:02    | *06:02     | *01:02    | *02:01 | *04:01          | SSP,RSSO,SBT |
| 1160 Rosen-Bronso | *07          | *15:06/07+ | *01:03N       | *01        | *03:03       | *06:02     |           |        |                 | RVSSO        |
| 793 Rubocki,Rona  | *07          | *15        | *null         | *+         | *03(DQ9)     | *06        |           |        | *04             | SSP          |
| 3519 Semana,Gilbe | *07:01       | *15:07     | *01:03N       | *01:01     | *03:03       | *06:02     |           |        | *04:01          | SBT,P-SSP    |
| 8068 Shanmugam,He | *07          | *15        | *+            | *+         | *(DQ9)       | *06        |           |        |                 | P-SSP        |
| 746 Stamm,Luz     | *07:01       | *15:07     | *01/*02       | *01        | *03:03       | *06:02     |           |        |                 | SSO,SSP,SBT  |
| 2020 Sutton,Maggi | *07:01:01    | *15:07     | *01:03:01:02N | *01:01-05+ | *03:03:02/31 | *06:02:01  | *01:02/06 | *02:01 | *04:01:01       | P-SSP,SBT    |
| 13 Tagliere,Jac   | *07:01       | *15:07     | *01:03N       | *01:01     | *03:03       | *06:02     |           |        |                 | SSP          |
| 769 Tavoularis,S  | *07:01       | *15:07     | *01:03:01:02N | *01:01     | *03:03       | *06:02     |           |        | *04:01          | SSO,SBT,SSP  |
| 747 Tiercy,Jean-  | *07:01:01G   | *15:07     | *01:03:01:02N | *01:01     | *03:03:02G   | *06:02:01  | *01:02    | *02:01 | *04:01:01G      | SSO,SSP,SBT  |
| 5451 Tilanus,Marc | *07:01:01    | *15:07     | *01:03:01:02N | *01:01:01  | *03:03:02    | *06:02:01  | *01:02    | *02:01 | *04:01:01       | SBT          |
| 4021 Trachtenberg | *07          | *15        | *0103N        | *01        | *03          | *06        | *01       | *02    |                 | SSO          |
| 5462 Turner,E.V.  | *07:01:01    | *15:07     | *01:03N       | *01:01     | *03:03       | *06:02     |           |        | *04:01/*120:01N | SEQ,SSO,SSP  |
| 5642 Varnavidou-N | *07:01       | *15:07     | *+            | *+         | *03:03       | *06:02/33+ |           |        |                 | P-SSP        |
| 3511 Zeevi,Adrian | *0701        | *1507      | *01030102N    | *0101      | *0303        | *0602      | *0102     | *0201  | *0401           | RVSSOP,SSP   |

| CTR DIRNAME       | DR7 | DR15 | DR51 | DQ9 | DQ6 | OTH1       | OTH2 |
|-------------------|-----|------|------|-----|-----|------------|------|
| 4492 Charron,D.   | +   | +    | +    | DQ3 | DQ1 | DR53, DR6  |      |
| 234 Gomez,Carmen  | +   | +    | +    | +   | +   | DR53       |      |
| 5195 Gomez,Carmen | +   | +    | +    | +   | +   | DR53       |      |
| 910 Hahn,Amy B.   | +   | +    | +    | +   | DQ1 |            |      |
| 4908 Kvam,Vonnott | +   | +    | +    | +   | +   |            |      |
| 54 Pancoska,Car   | +   | +    | +    | +   | +   |            |      |
| 793 Rubocki,Rona  | +   | +    | +    | +   | +   |            |      |
| 8063 Shai,Isaac   | +   | +    | +    | +   | +   | DR53, DR16 |      |

## B-CELL LINE TER-451 (Caucasian)

75 DNA LABS

## 75 LABS REPORTING DRB1

|                  |            |
|------------------|------------|
| DRB1*07          | 35%        |
| DRB1*07:01       | 47%        |
| DRB1*0701        | 9%         |
| DRB1*07:01:01    | 8%         |
| DRB1*07:01:01:01 | 1%         |
| DRB1*07          | 100% TOTAL |
| DRB1*15          | 30%        |
| DRB1*15:06       | 1%         |
| DRB1*15:07       | 61%        |
| DRB1*1507        | 8%         |
| DRB1*15          | 100% TOTAL |

## 72 LABS REPORTING DQB1

|               |            |
|---------------|------------|
| DQB1*03       | 24%        |
| DQB1*03:03    | 58%        |
| DQB1*0303     | 12%        |
| DQB1*03:03:02 | 6%         |
| DQB1*03       | 100% TOTAL |
| DQB1*06       | 28%        |
| DQB1*06:02    | 53%        |
| DQB1*0602     | 12%        |
| DQB1*06:02:01 | 7%         |
| DQB1*06       | 100% TOTAL |

## 34 LABS REPORTING DQA1

|               |            |
|---------------|------------|
| DQA1*01       | 12%        |
| DQA1*01:02    | 62%        |
| DQA1*0102     | 23%        |
| DQA1*01:02:01 | 3%         |
| DQA1*01       | 100% TOTAL |
| DQA1*02       | 9%         |
| DQA1*02:01    | 68%        |
| DQA1*0201     | 23%        |
| DQA1*02       | 100% TOTAL |

## 53 LABS REPORTING DRB4

|                   |     |
|-------------------|-----|
| DRB4*+            | 19% |
| DRB4*01:03        | 4%  |
| DRB4*0103         | 2%  |
| DRB4*01:03N       | 26% |
| DRB4*0103N        | 9%  |
| DRB4*01:03:01:02N | 30% |
| DRB4*01030102N    | 4%  |
| DRB4*01           | 6%  |

## 28 LABS REPORTING DPB1

|               |     |
|---------------|-----|
| DPB1*04       | 4%  |
| DPB1*04:01+   | 18% |
| DPB1*04:01    | 50% |
| DPB1*0401     | 14% |
| DPB1*04:01:01 | 11% |
| DPB1*040101   | 3%  |

## 52 LABS REPORTING DRB5

|               |     |
|---------------|-----|
| DRB5*+        | 21% |
| DRB5*01:01    | 40% |
| DRB5*0101     | 4%  |
| DRB5*01:01:01 | 4%  |
| DRB5*01       | 15% |
| DRB5*01:01/14 | 12% |
| DRB5*0101/14  | 4%  |

8 SEROLOGY LABS

|      |      |     |            |        |     |
|------|------|-----|------------|--------|-----|
| DR7  | 100% | DQ3 | 12%        | OTHERS |     |
| DR15 | 100% | DQ3 | 88%        | DR53   | 50% |
| DR51 | 100% | DQ1 | 100% TOTAL |        |     |
|      |      | DQ6 |            |        |     |
|      |      | DQ1 | 25%        |        |     |
|      |      |     | 75%        |        |     |
|      |      |     | 100% TOTAL |        |     |

## B-CELL LINE TER-452

| CTR DIRNAME          | DRB1      | DRB1X         | DRB3       | DRB5      | DQB1       | DQB1X      | DQA1      | DQA1X        | DPB1       | METHOD         |
|----------------------|-----------|---------------|------------|-----------|------------|------------|-----------|--------------|------------|----------------|
| 5488 Adams,Sharon    | *1405     | *1501         | *0202      | *0101/14  | *050301    | *060101    | *0102     | *0104        | *050101    | RSSO, SBT, SSP |
| 4691 Ajlan,Abdula    | *14       | *15           |            |           | *05        | *06        |           |              |            | SSO            |
| 5133 Baker,Judy      | *14:05    | *15:01/41/43  | *02:02     | *01:01    | *05:03     | *06:01     | *01:02    | *01          |            | SSO            |
| 774 Cecka,J.Mich     | *14:05    | *15:01        | *02:02/23  | *01:01    | *05:03     | *06:01     | *01:02    | *01:04       |            | SSP, SSOP      |
| 785 Chan,Soh Ha      | *1405/45  | *1501/05      | *0202      | NT        | *050301    | *0601      | *0102     | *0102/04/05  |            | SBT            |
| 5232 Charlton,Ron    | *14:05    | *15:01        | *02:02     | *01:01    | *05:03     | *06:01     |           |              |            | RVSSO, SSP     |
| 4492 Charron,D.      | *14:05/91 | *15:01/45/46  | *02:02     | *01:01    | *05:03     | *06:01     | *01:02    | *01:04       | *05:01     | P-SSO, SSP     |
| 8021 Clark,Brenda    | *14:23    | *15:01        | *01:07/*02 | *01/*02   | *05:03     | *06:01     |           |              | *05:01     | P-SSP, SSO     |
| 3632 Colombe,Beth    | *14:05    | *15:01        | *02:02     | *01:01    | *05:03     | *06:01     | *01:02    | *01:01/04/05 |            | SSP            |
| 5130 Costeas,Paul    | *14:05    | *15:01        | *02:02     | *01:01    | *05:03     | *06:01     | *01:02    | *01:04       |            | SSO, SSP       |
| 779 Daniel,Claud     | *14       | *15           | *+         | *+        | *05        | *06        |           |              |            | P-SSP          |
| 5219 Daniel,Dolly    | *14       | *15           | *+         | *+        | *05        | *06        |           |              |            | P-SSOP         |
| 8052 Del Pozo,Ana    | *1405/45  | *15           |            |           | *0503      | *0601      | *0102     | *01          |            | P-SSO          |
| 5323 Dhalialiwal,J.S | *14:05    | *15:01        | *02:02     | *01:01    | *05        | *06        |           |              |            | P-SSP, SSO     |
| 5891 Du,Keming       | *1405/45  | *1501/05      |            |           | *0503      | *0601      |           |              |            | P-SBT          |
| 5214 Eckels/CPMC     | *14       | *15           | *0202      | *01       | *0503      | *0601      | *0102     | *01          | *0501      | SSO            |
| 2332 Elkhalifa,Mo    | *14:05/23 | *15:01/41/43  |            |           | *0503      | *06:01     |           |              |            | RVSSO          |
| 4251 Ellis,Thomas    | *14:05    | *15:01        | *02:02/12  | *01:01    | *05:03     | *06:01     | *01       | *01          | *05:01     | P-SSO, SEQ     |
| 3135 Enczmann,J.     | *14:05    | *15:01        | *02:02     | *01:01    | *05:03     | *06:01     |           |              | *05:01     | SBT, P-SSP     |
| 762 Fischer/Mayr     | *14:05    | *15:01        | *02:02     | *01:01    | *05:03     | *06:01     | *01:02    | *01:04       | *05:01     | SSO, SSP, SBT  |
| 4079 Fort,Marylis    | *14:05    | *15:01        |            |           | *05:03     | *06:01     |           |              |            | P-SSP, SSO     |
| 792 Gandhi,Manis     | *14:05    | *15:01        | *02:02     | *01:01    | *05:03     | *06:01     | *01:02    | *01:04       |            | SSO, SSP       |
| 8043 Gideoni,Osnra   | *14:05    | *15:01        |            |           | *05:03     | *06:01     | *01:02    | *01:04       |            | SSP            |
| 9002 Gideoni_LR      | *14       | *15           |            |           | *05        | *06        |           |              |            | SSOP, SSP      |
| 234 Gomez,Carmen     | *14       | *15           | *+         | *+        | *05        | *06        |           |              |            | SSOP           |
| 5195 Gomez,Carmen    | *14       | *15           | *0202      | *01       | *0503      | *0601      | *0102     | *01          |            | SSOP           |
| 1694 Gottwald&Hes    | *14:05    | *15:01        |            |           | *05:03     | *06:01     |           |              |            | SSP            |
| 910 Hahn,Amy B.      | *14:05    | *15:01/24/32+ | *02:02/23  | *01:01    | *05:03     | *06:01     |           |              |            | SSP            |
| 810 Hamdi,Nuha       | *14:05    | *15:01        |            |           | *05:03     | *06:01     |           |              |            | SSO            |
| 4269 Hanau,Daniel    | *14:05:01 | *15:01:01     | *02:02:01  | *01:01    | *05:03/06  | *06:01/35  | *01:02    | *01:04       | *05:01     | SSP, SBT       |
| 1461 Hidajat,M.      | *14:05    | *15:01        | *02:02     | *01:01    | *05:03     | *06:01     |           |              | *05:01     | SSO, SSP       |
| 2344 Hurley/Hartz    | *14:05:01 | *15:01:01:01  |            |           | *05:03:01+ | *06:01:01+ |           |              | *05:01:01+ | SBT            |
| 771 Israel,Shosh     | *14:05    | *15:01        |            |           | *05:03     | *06:01     |           |              |            | P-SSP          |
| 9003 Israel_LR       | *14       | *15           |            |           | *05        | *06        |           |              |            | P-SSOP         |
| 794 Jaatinen,Tai     | *14:05    | *15:01        | *02:02     | *01:01    | *05:03     | *06:01     |           |              | *05:01     | SBT, SSO, SSP  |
| 859 Kamoun,Malek     | *14:05    | *15:01        | *02:02     | *01:01/14 | *05:03     | *06:01     | *01:02    | *01:04       |            | SBT, SSP, SSO  |
| 797 Kato,Shunich     | *14:05    | *15:01        |            |           | *05:03     | *06:01     | *01:02    | *01:01       |            | SSO, +SBT-DR   |
| 4337 Kim,Tai-Gyu     | *1405     | *1501         |            |           | *0503      | *0601      |           |              | *0501      | SBT            |
| 168 Klein,Tirza      | *14:05    | *15:01        |            |           | *05:03     | *06:01     |           |              |            | P-SSP, SSO     |
| 5096 Koh,Eun-mi      | *14       | *15           |            |           |            |            |           |              |            | SSOP           |
| 87 Land,Geoffre      | *1405     | *1501         | *0202      | *0101     | *0503      | *0601      | *0102     | *0105        | *0501      | SSO, SBT, SSP  |
| 725 Lardy,N.M.       | *14       | *15           | *+         | *+        | *05        | *06        | *01:02    | *01:04       |            | SSO, SSP       |
| 278 Lee,Jar-How      | *14:05    | *15:01        | *02:02     | *01:01    | *05:03     | *06:01     | *0102     | *01:01/04/05 | *05:01     | SSP, RVSSOP    |
| 640 Lee,Kyung Wh     | *14:05:01 | *15:01        |            |           | *05:03:01  | *06:01     | *01:02:01 | *01:04:01    |            | P-SBT          |
| 6649 Lim,Young Ae    | *14       | *15           | *+         | *+        |            |            |           |              |            | SSP            |
| 274 Lo,Raymundo      | *14       | *15           | *+         | *+        | *05        | *06        |           |              |            | SSP            |
| 731 Loewenthal,R     | *14:05    | *15:01        |            |           | *0503      | *0601      |           |              |            | SSO, SBT       |
| 759 Lopez-Cepero     | *14:05/45 | *15:01/13/16+ |            |           | *05:03     | *06:01     | *01:02    | *01:01/04/05 | *05:01     | RVSSO          |
| 23 Mah,Helen         | *14:05    | *15:01        | *02:02     | *01:01/14 | *05:03     | *06:01     | *01:02    | *01:01/04/05 | *05:01     | SSO, SSP       |
| 8029 Mani,Rama       | *14       | *15           | *+         | *+        |            |            |           |              |            | P-SSP          |
| 206 McAlack-Hana     | *14       | *15           | *02        | *01       | *05        | *06        |           |              |            | RVSSOP         |
| 9916 McIntyre,Joh    | *14:05:01 | *15:01:01     | *02:02     | *01:01:01 | *05:03/06  | *06:01     |           |              |            | SBT, SSP       |
| 8042 Muncher,Lior    | *14:05    | *15:01        |            |           | *05:03     | *06:01     |           |              |            | SSP, SSOP      |
| 9001 Muncher_LR      | *14       | *15           |            |           | *05        | *06        |           |              |            | SSOP, SSP      |
| 3648 Pereira,Noem    | *14:05    | *15:01        |            |           | *05:03     | *06:01     | *01       | *01          |            | RVSSO, SBT     |
| 3966 Permpikul&Ve    | *14:05    | *15:01        | *02:02     | *01:01    | *05:03     | *06:01     |           |              |            | P-SSP          |
| 2400 Phelan,Donna    | *14:05    | *15:01        | *02        | *01:01    | *05:03     | *06:01     | *01:02    | *01:04       | *05:01     | RSSO, SBT, SSP |

B-CELL LINE TER-452

| CTR DIRNAME       | DRB1      | DRB1X         | DRB3       | DRB5       | DQB1       | DQB1X      | DQA1      | DQA1X        | DPB1         | METHOD       |
|-------------------|-----------|---------------|------------|------------|------------|------------|-----------|--------------|--------------|--------------|
| 735 Ramon,Daniel  | *14:05    | *15:01        | *02:02     | *01:01/14  | *05:03     | *06:01     | *01:02    | *01:01/04/05 | *05:01       | SBT,SSP,RSSO |
| 8001 Rao,Prakash  | *14:05    | *15:01/24/32+ | *02:02     | *01:01/14  | *05:03     | *06:01     |           |              | *05:01       | RVSSOP,SSP   |
| 3753 Reed,Elaine  | *1405/45  | *1501/05      | *0202      | *0101/14   | *0503      | *0601      | *0102     | *0101/04/05  |              | SBT,SSO      |
| 3798 Reinsmoen,N  | *14:05:01 | *15:01:01     | *02:02     | *01:01/14  | *05:03:01  | *06:01     | *01:02    | *01:04       | *05:01       | SSP,RSSO,SBT |
| 1160 Rosen-Bronso | *14       | *15           | *02:02     | *01:01/14  | *05:03     | *06:01     |           |              |              | RVSSO        |
| 793 Rubocki,Rona  | *14       | *15           | *+         | *+         | *05        | *06        |           |              | *05          | SSP          |
| 3519 Semana,Gilbe | *14:05    | *15:01        | *02:02     | *01:01     | *05:03     | *06:01     |           |              | *05:01       | SBT,P-SSP    |
| 8068 Shanmugam,He | *14       | *15           | *+         | *+         | *05        | *06        |           |              |              | P-SSP        |
| 746 Stamm,Luz     | *14:05    | *15:01        | *02        | *01        | *05:03     | *06:01     |           |              |              | SSO,SSP,SBT  |
| 2020 Sutton,Maggi | *14:05:01 | *15:01:01     | *02:02/05+ | *01:01-05+ | *05:03:01  | *06:01:01  | *01:02/06 | *01:01/04+   | *05:01:01/02 | P-SSP,SBT    |
| 13 Tagliere,Jac   | *14:05    | *15:01        | *02:02     | *01:01     | *05:03     | *06:01     |           |              |              | SSP          |
| 769 Tavoularis,S  | *14:05    | *15:01        | *02:02     | *01:01     | *05:03     | *06:01     |           |              | *05:01       | SSO,SBT,SSP  |
| 747 Tiercy,Jean-  | *14:05:01 | *15:01:01G    | *02:02     | *01:01     | *05:03:01G | *06:01:01G | *01:02    | *01:01/04/05 | *05:01:01G   | SSO,SSP,SBT  |
| 5451 Tilanus,Marc | *14:05:01 | *15:01:01     | *02:02:01  | *01:01:01  | *05:03     | *06:01     | *01:02    | *01:04       | *05:01       | SBT          |
| 4021 Trachtenberg | *14       | *15           | *02        | *01        | *05        | *06        | *01       | *01          |              | SSO          |
| 5462 Turner,E.V.  | *14:05:01 | *15:01:01     | *02:02/23  | *01:01     | *05:03     | *06:01     |           |              | *05:01       | SEQ,SSO,SSP  |
| 5642 Varnavidou-N | *14:05/56 | *15:01        | *+         | *+         | *05:03:01  | *06:01     |           |              |              | P-SSP        |
| 3511 Zeevi,Adrian | *1405     | *1501         | *0202      | *0101      | *0503      | *0601      | *0102     | *0105        | *0501        | RVSSOP,SSP   |

| CTR DIRNAME        | DR14 | DR15 | DR52 | DR51 | DQ1 | DQ1X | OTH1      | OTH2 |
|--------------------|------|------|------|------|-----|------|-----------|------|
| 4492 Charron,D.    | DR6  | +    | +    | +    | +   |      | DR9       |      |
| 234 Gomez,Carmen   | +    | +    | +    | +    | DQ5 | DQ6  |           |      |
| 5195 Gomez,Carmen  | +    | +    | +    | +    | DQ5 | DQ6  |           |      |
| 910 Hahn,Amy B.    | +    | +    | +    | +    | +   |      |           |      |
| 4908 Kvam,Vonnnett | +    | +    | +    | +    | DQ5 | DQ6  |           |      |
| 54 Pancoska,Car    | +    | +    | +    | +    | +   |      |           |      |
| 793 Rubocki,Rona   | +    | +    | +    | +    | +   |      |           |      |
| 8063 Shai,Isaac    | +    | +    | +    | +    |     | DQ6  | DR10,DR16 |      |

## B-CELL LINE TER-452 (Chinese)

75 DNA LABS

## 75 LABS REPORTING DRB1

|               |            |               |     |
|---------------|------------|---------------|-----|
| DRB1*14       | 36%        |               |     |
| DRB1*14:05    | 46%        | DQB1*05       | 25% |
| DRB1*1405     | 5%         | DQB1*05:03    | 54% |
| DRB1*14:05:01 | 12%        | DQB1*0503     | 13% |
| DRB1*14:23    | 1%         | DQB1*05:03:01 | 5%  |
| DRB1*14       | 100% TOTAL | DQB1*050301   | 3%  |

## 72 LABS REPORTING DQB1

|               |            |         |            |
|---------------|------------|---------|------------|
| DQB1*05       |            |         |            |
| DQB1*05:03    | 54%        |         |            |
| DQB1*0503     | 13%        |         |            |
| DQB1*05:03:01 | 5%         |         |            |
| DQB1*050301   | 3%         |         |            |
|               | 100% TOTAL | DQB1*05 | 100% TOTAL |

## 34 LABS REPORTING DQA1

|               |            |                  |            |
|---------------|------------|------------------|------------|
| DQA1*01       | 12%        |                  |            |
| DQA1*01:02    | 59%        |                  |            |
| DQA1*0102     | 26%        |                  |            |
| DQA1*01:02:01 | 3%         |                  |            |
| DQA1*01       | 100% TOTAL | DQA1*01          | 26%        |
|               |            | DQA1*01:01:04/05 | 18%        |
|               |            | DQA1*0101/04/05  | 3%         |
|               |            | DQA1*01:01       | 6%         |
|               |            | DQA1*01:04       | 35%        |
|               |            | DQA1*0104        | 3%         |
|               |            | DQA1*01:04:01    | 3%         |
|               |            | DQA1*01:05       | 6%         |
|               |            | DQA1*01          | 100% TOTAL |

## 53 LABS REPORTING DRB3

|               |     |  |  |
|---------------|-----|--|--|
| DRB3*+        | 21% |  |  |
| DRB3*02:02    | 45% |  |  |
| DRB3*0202     | 13% |  |  |
| DRB3*02:02:01 | 4%  |  |  |
| DRB3*02       | 17% |  |  |

## 28 LABS REPORTING DPB1

|             |     |  |  |
|-------------|-----|--|--|
| DPB1*05     | 11% |  |  |
| DPB1*05:01  | 71% |  |  |
| DPB1*0501   | 14% |  |  |
| DPB1*050101 | 4%  |  |  |

## 52 LABS REPORTING DRB5

|               |     |  |  |
|---------------|-----|--|--|
| DRB5*+        | 21% |  |  |
| DRB5*01:01    | 44% |  |  |
| DRB5*0101     | 4%  |  |  |
| DRB5*01:01:01 | 4%  |  |  |
| DRB5*01       | 12% |  |  |
| DRB5*01:01/14 | 11% |  |  |
| DRB5*0101/14  | 4%  |  |  |

8 SEROLOGY LABS

|      |            |     |     |
|------|------------|-----|-----|
| DR6  | 12%        | DQ1 | 50% |
| DR14 | 88%        | DQ5 | 38% |
| DR6  | 100% TOTAL | DQ6 | 50% |
| DR15 | 100%       |     |     |
| DR52 | 100%       |     |     |
| DR51 | 100%       |     |     |

| INVESTIGATOR | DNA EXTRACT #509 (Caucasian) |               |                        |                                 |                  |              |                  |              | method |
|--------------|------------------------------|---------------|------------------------|---------------------------------|------------------|--------------|------------------|--------------|--------|
| CTR          | NAME                         | A1            | A2                     | B1                              | B2               | C1           | C2               |              |        |
| 5488         | Adams,Sharon                 | *0216         | *030101                | *510101                         |                  | *070401/11   | *150201          | RVSSO,SBT    |        |
| 4691         | Ajlan,Abdula                 | *02           | *03                    | *51                             | *51              | *07          | *15              | SSO          |        |
| 5133         | Baker,Judy                   | *02:16        | *03:01:01              | *51:01:01                       |                  | *07:04:01/11 | *15:02:01/13     | SSO,SBT      |        |
| 4345         | Blasczyk,Rai                 | *02:16P       | *03:01:01G             | *51:01:01G                      |                  | *07:04P      | *15:02P          | PCR-SBT      |        |
| 785          | Chan,Soh Ha                  | *02:16/131    | *03:01/20/21N/26/27    | *51:01/11N/30/32/48/51          |                  | *07:04/11    | *15:02/13        | SBT          |        |
| 3224         | Chen,Dongfen                 | *02:16        | *03:01                 | *51:01                          |                  | *07:04/11    | *15:02           | SBT,SSO      |        |
| 8021         | Clark,Brenda                 | *020101-0104+ | *0301-04/07+           | *510101-0103/0105-03/05-07+     |                  | *0704/11/12+ | *1502-06+        | PCR-SSP      |        |
| 5219         | Daniel,Dolly                 | *02           | *03                    | *51                             | *51              |              |                  | PCR-SSOP     |        |
| 5323         | Dhaliwal,J.S                 | *02           | *03                    | *51                             |                  | *07          | *15              | PCR-SSP      |        |
| 5891         | Du,Keming                    | *0216         | *0301                  | *5101/76                        | *5101/76         | *0704        | *1502            | PCR-SBT      |        |
| 3766         | Dunn,Paul                    | *02:16/131    | *03                    | *51                             |                  | *07:04/11/63 | *15              | SSO,SSP      |        |
| 2332         | Elkhalifa,Mo                 | *02           | *03                    | *51                             |                  | *07          | *15              |              |        |
| 4251         | Ellis,Thomas                 | *02:16        | *03:01                 | *51:01                          | *51:01           | *07:04/11    | *15:02           | PCR-SSO,SEQ  |        |
| 3135         | Enczmann,J.                  | *02:16        | *03:01                 | *51:01                          |                  | *07:04       | *15:02           | PCR-SSO,SBT  |        |
| 762          | Fischer&Mayr                 | *02:16/131    | *03:01/01N/20/21N/26+  | *51:01/11N/30/32/48/51          |                  | *07:04/11    | *15:02/13        | RSSO,SSP,SBT |        |
| 234          | Gomez,Carmen                 | *02           | *03                    | *51                             |                  | *07          | *15              | SSP          |        |
| 5195         | Gomez,Carmen                 | *02           | *03                    | *51                             |                  | *07          | *15              | SSOP         |        |
| 1694         | Gottwald&Hes                 | *02           | *03                    | *51                             |                  | *07          | *15              |              |        |
| 1461         | Hidajat,Mela                 | *02:16        | *03:01                 | *51:01                          |                  | *07:04       | *15:02           | SSO,SSP      |        |
| 615          | Holdsworth,R                 | *02:16:01G    | *03:01:01G             | *51:01:01G                      |                  | *07:04:01G   | *15:02:01G       | SBT          |        |
| 745          | Holman,Richa                 | *02:16        | *03:01:01              | *51:01:01                       |                  | *07:04:01    | *15:02:01        | SSO,SSP,SBT  |        |
| 2344         | Hurley&Hartz                 | *02:16/131    | *03:01:01/01-01:01:03+ | *51:01:01/01:05+                | *51:01:01/01:05+ | *07:04:01/11 | *15:02:01/02:07+ | SBT,SSOP     |        |
| 794          | Jaatinen,Tai                 | *02:16        | *03:01                 | *51:01                          |                  | *07:04/11    | *15:02           | SBT,SSO,SSP  |        |
| 797          | Kato,Shunich                 | *02:16        | *03:01/01N             | *51:01                          |                  | *07:04/11    | *15:02           | SSO,SBT      |        |
| 2847         | Kihara,Masaa                 | *02           | *03                    | *51                             |                  | *07          | *15              | RVSSO        |        |
| 5096         | Koh,Eun-mi                   | *02           | *03                    | *51                             | *51              |              |                  | SSOP         |        |
| 87           | Land,Geoff                   | *0216         | *0301                  | *5101                           | *5101            | *0704        | *1502            | SBT,SSO,SSP  |        |
| 278          | Lee,Jar-How                  | *02:16/131    | *03:01/37/45/48/58/60+ | *51:01/38/48/50/51/66/67/69-72+ |                  | *07:04       | *15:02           | SSP,RVSSOP   |        |
| 640          | Lee,Kyung Wh                 | *02:16        | *03:01                 | *51:01                          |                  | *07:04/11    | *15:02           | PCR-SBT      |        |
| 1108         | Linke,Robert                 | *02           | *03                    | *51                             | *51              | *07          | *15              | RVSSOP       |        |
| 9916         | McIntyre,Joh                 | *02:16        | *03:01:01:01           | *51:01:01                       |                  | *07:04/142   | *15:02/08/10/11+ | SBT,SSP      |        |
| 8042         | Muncher,Lior                 | *02:16        | *03:01                 | *51:01                          |                  | *07:04       | *15:02           | SSOP,SSP     |        |
| 9001         | Muncher_LR                   | *02           | *03                    | *51                             |                  | *07          | *15              | SSOP         |        |
| 3648         | Pereira,Noem                 | *02:16        | *03:01                 | *51:01                          |                  | *07:04P      | *15:02           | RSSO,SSP,SBT |        |
| 3966         | Permpikul&Ve                 | *02           | *03                    | *51                             |                  | *07          | *15              | PCR-SSP      |        |
| 2400         | Phelan,Donna                 | *02:16        | *03:01/02N             | *51:01                          |                  | *07:04/11    | *15:02           | RVSSO,SBT    |        |
| 735          | Ramon,Daniel                 | *02           | *03                    | *51                             |                  | *07          | *15              | RVSSOP       |        |
| 3753         | Reed,Elaine                  | *0216         | *0301                  | *5101                           | *5101            | *0704/11     | *1502            | SBT,SSO      |        |
| 3798         | Reinsmoen,N                  | *02:16        | *03:01:01/01N          | *51:01:01                       |                  | *07:04:01/11 | *15:02:01        | RVSSO,SBT    |        |
| 4948         | Sage,Deborah                 | *02:16        | *03:01                 | *51:01                          |                  | *07:04/11    | *15:02           |              |        |
| 3545         | Scornik,Juan                 | *02:16        | *03:01                 | *51:01                          |                  | *07:04/11    | *15:02           | SSOP,SBT     |        |
| 8068         | Shanmugam,He                 | *02           | *03                    | *51                             | *51              |              |                  | PCR-SSP      |        |
| 746          | Stamm,Luz                    | *02:16        | *03:01                 | *51:01                          | *51:01           | *07:04       | *15:02           | SSO,SSP,SBT  |        |
| 2020         | Sutton,Maggi                 | *02:16        | *03:01:01:01           | *51:01:01                       |                  | *07:04:01    | *15:02:01        | PCR-SSP,SBT  |        |
| 13           | Tagliere,Jac                 | *02:16        | *03:01                 | *51:01                          |                  | *07:04       | *15:02           | SSP          |        |
| 4021         | Trachtenberg                 | *02           | *03                    | *51                             |                  | *07          | *15              | SSO          |        |
| 5462         | Turner,E.V.                  | *02:16        | *03:01:01:01/02N/03    | *51:01:01                       |                  | *07:04:01    | *15:02:01        | SEQ,SSO,SSP  |        |
| 3186         | Watson,Narel                 | *02           | *03                    | *51                             |                  | *07          | *15              | SSP          |        |

| INVESTIGATOR | DNA EXTRACT #510 (Japanese) | A1              | A2                  | B1              | B2         | C1               | C2               | method         |
|--------------|-----------------------------|-----------------|---------------------|-----------------|------------|------------------|------------------|----------------|
| CTR          | NAME                        |                 |                     |                 |            |                  |                  |                |
| 5488         | Adams,Sharon                | *110101         | *260101             | *130101         | *5603      | *0102/22         | *0304/28         | RVSSO, SBT     |
| 4691         | Ajlan,Abdula                | *11             | *26                 | *13             | *56        | *01              | *03              | SSO            |
| 5133         | Baker,Judy                  | *11:01:01       | *26:01:01           | *13:01          | *56:03     | *01:02           | *03:04           | SSO, SBT       |
| 4345         | Blasczyk,Rai                | *11:01:01G      | *26:01P             | *13:01:01       | *56:03     | *01:02P          | *03:04P          | PCR-SBT        |
| 785          | Chan,Soh Ha                 | *11:01/19/21N   | *26:01/13/24/26     | *13:01          | *56:03     | *01:02/11/22/25  | *03:04/28        | SBT            |
| 3224         | Chen,Dongfen                | *11:01          | *26:01              | *13:01          | *56:03     | *01:02           | *03:04           | SBT, SSO       |
| 8021         | Clark,Brenda                | *1101/02/05-07+ | *260101/0103-02/04+ | *1301-03/06-08+ | *5603      | *0102/03/06-11+  | *0302/0401-0406+ | PCR-SSP        |
| 5219         | Daniel,Dolly                | *11             | *26                 | *13             | *56        |                  |                  | PCR-SSOP       |
| 5323         | Dhaliwal,J.S                | *11             | *26                 | *13             | *56        | *01              | *03              | PCR-SSP        |
| 5891         | Du,Keming                   | *1101           | *2601               | *1301           | *5603      | *0102            | *0304            | PCR-SBT        |
| 3766         | Dunn,Paul                   | *11             | *26                 | *13             | *56:03     | *01              | *03:04G          | SSO, SSP       |
| 2332         | Elkhalifa,Mo                | *11             | *26                 | *13             | *56        | *01              | *03              |                |
| 4251         | Ellis,Thomas                | *11:01          | *26:01              | *13:01          | *56:03     | *01:02           | *03:04           | PCR-SSO, SEQ   |
| 3135         | Enczmann,J.                 | *11:01          | *26:01              | *13:01          | *56:03     | *01:02           | *03:04           | PCR-SSO, SBT   |
| 762          | Fischer&Mayr                | *11:01/21N      | *26:01/24/26        | *13:01          | *56:03     | *01:02/25        | *03:04           | RSSO, SSP, SBT |
| 234          | Gomez,Carmen                | *11             | *26                 | *13             | *56        | *01              | *03              | SSP            |
| 5195         | Gomez,Carmen                | *11             | *26                 | *13             | *5603      | *01              | *03              | SSOP           |
| 1694         | Gottwald&Hes                | *11             | *26                 | *13             | *56        | *01              | *03              |                |
| 1461         | Hidajat,Mela                | *11:01          | *26:01              | *13:01          | *56:03     | *01:02           | *03:04           | SSO, SSP       |
| 615          | Holdsworth,R                | *11:01:01G      | *26:01:01G          | *13:01:01G      | *56:03     | *01:02:01G       | *03:04:01G       | SBT            |
| 745          | Holman,Richa                | *11:01          | *26:01              | *13:01          | *56:03     | *01:02           | *03:04           | SSO, SSP, SBT  |
| 2344         | Hurley&Hartz                | *11:01:01/21N+  | *26:01:01/01:07/24+ | *13:01:01/01:08 | *56:03     | *01:02:01/02:02+ | *03:04:01:01+    | SBT, SSOP      |
| 794          | Jaatinen,Tai                | *11:01          | *26:01              | *13:01          | *56:03     | *01:02           | *03:04           | SBT, SSO, SSP  |
| 797          | Kato,Shunich                | *11:01          | *26:01              | *13:01          | *56:03     | *01:02           | *03:04           | SSO, SBT       |
| 2847         | Kihara,Masaa                | *11             | *26                 | *13             | *56        | *01              | *03              | RVSSO          |
| 5096         | Koh,Eun-mi                  | *11             | *26                 | *13             | *56        |                  |                  | SSOP           |
| 87           | Land,Geoff                  | *1101           | *2601               | *1301           | *5603      | *0102            | *0304            | SBT, SSO, SSP  |
| 278          | Lee,Jar-How                 | *11:01/21N/30+  | *26:01/39/41/42     | *13:01/29       | *56:03     | *01:02/25        | *03:04           | SSP, RVSSOP    |
| 640          | Lee,Kyung Wh                | *11:01/19       | *26:01/13           | *13:01          | *56:03     | *01:02/48        | *03:04:64        | PCR-SBT        |
| 1108         | Linke,Robert                | *11             | *26                 | *13             | *56        | *01              | *03              | RVSSOP         |
| 9916         | McIntyre,Joh                | *11:01:01       | *26:01:01           | *13:01:01       | *56:03     | *01:02/38-40     | *03:04/48/78/82+ | SBT, SSP       |
| 8042         | Muncher,Lior                | *11:01          | *26:01              | *13:01          | *56:03     | *01:02           | *03:04           | SSOP, SSP      |
| 9001         | Muncher_LR                  | *11             | *26                 | *13             | *56        | *01              | *03              | SSOP           |
| 3648         | Pereira,Noem                | *11:01          | *26:01              | *13:01          | *56:03     | *01:02//*01:22+  | *03:04//*03:28+  | RSSO, SSP, SBT |
| 3966         | Permpikul&Ve                | *11             | *26                 | *13             | *5603      | *01              | *03              | PCR-SSP        |
| 2400         | Phelan,Donna                | *11:01          | *26:01              | *13:01          | *56:03     | *01:02           | *03:04           | RVSSO, SBT     |
| 735          | Ramon,Daniel                | *11             | *26                 | *13             | *56        | *01              | *03              | RVSSOP         |
| 3753         | Reed,Elaine                 | *1101           | *2601               | *1301           | *5603      | *0102/22         | *0304/28         | SBT, SSO       |
| 3798         | Reinsmoen,N                 | *11:01:01       | *26:01:01           | *13:01          | *56:03     | *01:02           | *03:04:01        | RVSSO, SBT     |
| 4948         | Sage,Deborah                | *11:01          | *26:01              | *13:01          | *56:03     | *01:02/22/31     | *03:04/28/98     |                |
| 3545         | Scornik,Juan                | *11:01          | *26:01              | *13:01          | *56:03     | *01:02           | *03:04           | SSOP, SBT      |
| 8068         | Shanmugam,He                | *11             | *26                 | *13             | *(B22/B15) |                  | PCR-SSP          |                |
| 746          | Stamm,Luz                   | *11:01          | *26:01              | *13:01          | *56:03     | *01:02           | *03:04           | SSO, SSP, SBT  |
| 2020         | Sutton,Maggi                | *11:01:01       | *26:01:01           | *13:01:01       | *56:03     | *01:02:01/02:11  | *03:04:01        | PCR-SSP, SBT   |
| 13           | Tagliere,Jac                | *11:01          | *26:01              | *13:01          | *56:03     | *01:02           | *03:04           | SSP            |
| 4021         | Trachtenberg                | *11             | *26                 | *13             | *56        | *01              | *03              | SSO            |
| 5462         | Turner,E.V.                 | *11:01:01/19    | *26:01:01/13        | *13:01          | *56:03     | *01:02           | *03:04:01        | SEQ, SSO, SSP  |
| 3186         | Watson,Narel                | *11             | *26                 | *13             | *56        | *01              | *03              | SSP            |

| INVESTIGATOR | DNA EXTRACT #511 (Japanese) | A1                      | A2                | B1                  | B2        | C1                         | C2            | method       |
|--------------|-----------------------------|-------------------------|-------------------|---------------------|-----------|----------------------------|---------------|--------------|
| CTR          | NAME                        |                         |                   |                     |           |                            |               |              |
| 5488         | Adams,Sharon                | *020101                 | *310102           | *150101             | *670101   | *070201/50                 |               | RVSSO,SBT    |
| 4691         | Ajlan,Abdula                | *02                     | *31               | *15                 | *67       | *07                        | *07           | SSO          |
| 5133         | Baker,Judy                  | *02:01:01               | *31:01:02         | *15:01:01           | *67:01:01 | *07:02:01/50               |               | SSO,SBT      |
| 4345         | Blasczyk,Rai                | *02:01:01G              | *31:01:02G        | *15:01:01G          | *67:01:01 | *07:02P                    |               | PCR-SBT      |
| 785          | Chan,Soh Ha                 | *02                     | *31:01/02/14N     | *15:01/102/104/140+ | *67:01    | *07:02/50/66/74            |               | SBT          |
| 3224         | Chen,Dongfen                | *02:01                  | *31:01            | *15:01              | *67:01    | *07:02                     |               | SBT,SSO      |
| 8021         | Clark,Brenda                | *020101-0104/0106-0115+ | *3101/02/05-07+   | *150101-0104/0106+  | *6701     | *0702/03/05/10+            |               | PCR-SSP      |
| 5219         | Daniel,Dolly                | *02                     | *31               | *15                 | *67       |                            |               | PCR-SSOP     |
| 5323         | Dhaliwal,J.S                | *02                     | *31               | *15                 | *67       | *07                        |               | PCR-SSP      |
| 5891         | Du,Keming                   | *0201                   | *3101             | *1501               | *6701     | *0702                      | *0702         | PCR-SBT      |
| 3766         | Dunn,Paul                   | *02                     | *31               | *15:01G             | *67:01    | *07                        |               | SSO,SSP      |
| 2332         | Elkhalifa,Mo                | *02                     | *31               | *15                 | *67       | *07                        |               |              |
| 4251         | Ellis,Thomas                | *02:01                  | *31:01            | *15:01/01N          | *67:01    | *07:02/50                  | *07:02/50     | PCR-SSO,SEQ  |
| 3135         | Enczmann,J.                 | *02:01                  | *31:01            | *15:01              | *67:01    | *07:02/50                  |               | PCR-SSO,SBT  |
| 762          | Fischer&Mayr                | *02:01/01L/09/43N/66+   | *31:01/14N/23     | *15:01/102/140/146+ | *67:01    | *07:02/50/66/74            |               | RSSO,SSP,SBT |
| 234          | Gomez,Carmen                | *02                     | *31               | *15                 | *67       | *07                        |               | SSP          |
| 5195         | Gomez,Carmen                | *02                     | *31               | *15                 | *6701     | *07                        | *07           | SSOP         |
| 1694         | Gottwald&Hes                | *02                     | *31               | *15                 | *67       | *07                        |               |              |
| 1461         | Hidajat,Mela                | *02:01                  | *31:01            | *15:01              | *67:01    | *07:02                     |               | SSO,SSP      |
| 615          | Holdsworth,R                | *02:01:01G              | *31:01:02G        | *15:01:01G          | *67:01    | *07:02:01G                 |               | SBT          |
| 745          | Holman,Richa                | *02:01:01               | *31:01:02         | *15:01:01:01        | *67:01:01 | *07:02:01                  |               | SSO,SSP,SBT  |
| 2344         | Hurley&Hartz                | *02:01:01-01:01:03+     | *31:01:02/14N/23+ | *15:01:01:01+       | *67:01:01 | *07:02:01:01+              | *07:02:01:01+ | SBT,SSOP     |
| 794          | Jaatinen,Tai                | *02:01                  | *31:01            | *15:01              | *67:01    | *07:02/50                  |               | SBT,SSO,SSP  |
| 797          | Kato,Shunich                | *02:01/01L              | *31:01            | *15:01/01N          | *67:01    | *07:02/50                  |               | SSO,SBT      |
| 2847         | Kihara,Masaa                | *02                     | *31               | *15                 | *67       | *07                        |               | RVSSO        |
| 5096         | Koh,Eun-mi                  | *02                     | *31               | *15                 | *13       |                            |               | SSOP         |
| 87           | Land,Geoff                  | *0201                   | *3101             | *1501               | *6701     | *0702                      | *0702         | SBT,SSO,SSP  |
| 278          | Lee,Jar-How                 | *02:01/97/121/132/134+  | *31:01/28         | *15:01/102/140/146+ | *67:01    | *07:02                     |               | SSP,RVSSOP   |
| 640          | Lee,Kyung Wh                | *02:01/20/40/43         | *31:01/02/21/41   | *15:01              | *67:01    | *07:02/50                  |               | PCR-SBT      |
| 1108         | Linke,Robert                | *02                     | *31               | *15                 | *67       | *07                        | *07           | RVSSOP       |
| 9916         | McIntyre,Joh                | *02:01:01:01            | *31:01:02         | *15:01:01:01        | *67:01:01 | *07:02/66/100/102/105/107+ |               | SBT,SSP      |
| 8042         | Muncher,Lior                | *02:01                  | *31:01            | *15:01              | *67:01    | *07:02                     |               | SSOP,SSP     |
| 9001         | Muncher_LR                  | *02                     | *31               | *15                 | *67       | *07                        |               | SSOP         |
| 3648         | Pereira,Noem                | *02:01//*02:243         | *31:01//*31:21    | *15:01/01N          | *67:01    | *07:02P                    |               | RSSO,SSP,SBT |
| 3966         | Permpikul&Ve                | *02                     | *31               | *15                 | *6701     | *07                        |               | PCR-SSP      |
| 2400         | Phelan,Donna                | *02:01                  | *31:01            | *15:01/01N          | *67:01    | *0702/50                   |               | RVSSO,SBT    |
| 735          | Ramon,Daniel                | *02                     | *31               | *15                 | *67       | *07                        |               | RVSSOP       |
| 3753         | Reed,Elaine                 | *0201                   | *3101             | *1501               | *6701     | *0702/50                   | *0702/50      | SBT,SSO      |
| 3798         | Reinsmoen,N                 | *02:01:01/01L           | *31:01:02         | *15:01:01/01N       | *67:01:01 | *07:02:01/50               |               | RVSSO,SBT    |
| 4948         | Sage,Deborah                | *02:01/20/243           | *31:01/02/21      | *15:01              | *67:01    | *07:02/50                  |               | SSOP,SBT     |
| 3545         | Scornik,Juan                | *02:01                  | *31:01            | *15:01              | *67:01    | *07:02/50                  |               |              |
| 8068         | Shanmugam,He                | *02                     | *31               | *15(B62)            | *67       |                            |               | PCR-SSP      |
| 746          | Stamm,Luz                   | *02:01                  | *31:01            | *15:01              | *67:01    | *07:02                     | *07:02        | SSO,SSP,SBT  |
| 2020         | Sutton,Maggi                | *02:01:01:01/01:01:02L  | *31:01:02         | *15:01:01:01        | *67:01:01 | *07:02:01:01/02:01:03      |               | PCR-SSP,SBT  |
| 13           | Tagliere,Jac                | *02:01                  | *31:01            | *15:01              | *67:01    | *07:02                     |               | SSP          |
| 4021         | Trachtenberg                | *02                     | *31               | *15                 | *67       | *07                        |               | SSO          |
| 5462         | Turner,E.V.                 | *02:01:01               | *31:01:02         | *15:01:01:01/02N    | *67:01:01 | *07:02:01                  |               | SEQ,SSO,SSP  |
| 3186         | Watson,Narel                | *02                     | *31               | *15                 | *67       | *07                        |               | SSP          |

| INVESTIGATOR | DNA EXTRACT #512 (Chinese) |                  |                       |                    |               |                 | method           |              |
|--------------|----------------------------|------------------|-----------------------|--------------------|---------------|-----------------|------------------|--------------|
| CTR          | NAME                       | A1               | A2                    | B1                 | B2            | C1              | C2               |              |
| 5488         | Adams,Sharon               | *110101/0201/53  | *240201/63            | *130101            | *152701       | *03             | *04              | RVSSO,SBT    |
| 4691         | Ajlan,Abdula               | *11              | *24                   | *13                | *15           | *03             | *04              | SSO          |
| 5133         | Baker,Judy                 | *11:02:01        | *24:02:01             | *13:01             | *15:27:01     | *03:04          | *04:01           | SSP          |
| 4345         | Blasczyk,Rai               | *11:02P          | *24:02:01G            | *13:01:01          | *15:27:01     | *03:04P         | *04:01:01G       | PCR-SBT      |
| 785          | Chan,Soh Ha                | *11:01/02/21N/38 | *24:02/03/09N/11N+    | *13:01             | *15:27        | *03:04/07/28+   | *04:01/09N/04+   | SBT          |
| 3224         | Chen,Dongfen               | *11:02/53        | *24:02                | *13:01             | *15:27        | *03:04          | *04:01/09N/30    | SBT,SSO      |
| 8021         | Clark,Brenda               | *1101/02/05-07+  | *2402/03/07+          | *1301-03/06-08+    | *150101-0104+ |                 |                  | PCR-SSP      |
| 5219         | Daniel,Dolly               | *11              | *24                   | *13                | *15           |                 |                  | PCR-SSOP     |
| 5323         | Dhaliwal,J.S               | *11              | *24                   | *13                | *15           | *03             | *04              | PCR-SSP      |
| 5891         | Du,Keming                  | *1153            | *2402                 | *1301              | *1527         | *0304           | *0401            | PCR-SBT      |
| 3766         | Dunn,Paul                  | *11              | *24                   | *13                | *15:27/109    | *03:04G         | *04              | SSO,SSP      |
| 2332         | Elkhalifa,Mo               | *11              | *24                   | *13                | *15           | *03             | *04              |              |
| 4251         | Ellis,Thomas               | *11:01           | *24:02                | *13:01             | *15:27        | *03:04          | *04:01           | PCR-SSO,SEQ  |
| 3135         | Enczmann,J.                | *11:01           | *24:63                | *13:01             | *15:27        | *03:04          | *04:01/09N/30    | PCR-SSO,SBT  |
| 762          | Fischer&Mayr               | *11:02/53        | *24:02/09N/11N/40N+   | *13:01             | *15:27        | *03:04          | *04:01/09N/28+   | SSO,SSP,SBT  |
| 234          | Gomez,Carmen               | *11              | *24                   | *13                | *15           | *03             | *04              | SSP          |
| 5195         | Gomez,Carmen               | *11              | *24                   | *13                | *15           | *03             | *04              | SSOP         |
| 1694         | Gottwald&Hes               | *11              | *24                   | *13                | *15           | *03             | *04              |              |
| 1461         | Hidajat,Mela               | *11:53           | *24:02                | *13:01             | *15:27        | *03:04          | *04:01           | SBT,SSP      |
| 615          | Holdsworth,R               | *11:02:01G       | *24:02:01G            | *13:01:01G         | *15:27        | *03:04:01G      | *04:01:01G       | SBT          |
| 745          | Holman,Richa               | *11:53           | *24:02                | *13:01             | *15:27:01     | *03:04:01       | *04:01:01        | SSO,SSP,SBT  |
| 2344         | Hurley&Hartz               | *11:02/01/02:03+ | *24:02/01/02:01:021L+ | *13:01:01/01:01:06 | *15:27:01     | *03:04:01:01+   | *04:01:01:01+    | SBT          |
| 794          | Jaatinen,Tai               | *11:02/53        | *24:02                | *13:01             | *15:27        | *03:04          | *04:01:30        | SBT,SSO,SSP  |
| 797          | Kato,Shunich               | *11:01/02/53     | *24:02/63             | *13:01             | *15:27        | *03:04          | *04:01/09N/30    | SSO,SBT      |
| 2847         | Kihara,Masaa               | *11              | *24                   | *13                | *15           | *03             | *04              | RVSSO        |
| 5096         | Koh,Eun-mi                 | *11              | *24                   | *67                | *15           |                 |                  | SSOP         |
| 87           | Land,Geoff                 | *1101            | *2402                 | *1301              | *1527         | *0304           | *0401            | SBT,SSO,SSP  |
| 278          | Lee,Jar-How                | *11:02           | *24:02                | *13:01/29          | *15:27        | *03:04          | *04:01           | SSP,RVSSOP   |
| 640          | Lee,Kyung Wh               | *11:01/02/38/53  | *24:02/03/63          | *13:01             | *15:27        | *03:04          | *04:01/09N/30+   | PCR-SBT      |
| 1108         | Linke,Robert               | *11              | *24                   | *13                | *15           | *03             | *04              | RVSSOP       |
| 9916         | McIntyre,Joh               | *1102/53         | *24:02:01:01          | *13:01             | *15:27:01     | *03:04/78/82+   | *04:01/38-41/44+ | SBT,SSP      |
| 8042         | Muncher,Lior               | *11:02           | *24:02                | *13:01             | *15:27        | *03:04          | *04:01           | SSO,SSP      |
| 9001         | Muncher_LR                 | *11              | *24                   | *13                | *15           | *03             | *04              | SSOP         |
| 3648         | Pereira,Noem               | *11:02           | *24:02                | *13:01             | *15:27        | *03:04//*03:92  | *04:01P//*04:08  | RSSO,SSP,SBT |
| 3966         | Permpikul&Ve               | *11              | *24                   | *13                | *1527         | *03             | *04              |              |
| 2400         | Phelan,Donna               | *11:53           | *24:02                | *13:01             | *15:27        | *03:04          | *04:01           | RVSSO,SBT    |
| 735          | Ramon,Daniel               | *11              | *24                   | *13                | *15           | *03             | *04              | RVSSOP       |
| 3753         | Reed,Elaine                | *1101/02/38/53   | 82402/03/63           | *1301              | *1527         | *0304/07/28/32+ | *0401/04/09N/10+ | SBT,SSO      |
| 3798         | Reinsmoen,N                | *11:02:01/53     | *24:02:01/01L         | *13:01             | *15:27:01     | *03:04:01       | *04:01/09N/30/82 | RSSO,SSP,SBT |
| 4948         | Sage,Deborah               | *11:01/02/53     | *24:02/63             | *13:01             | *15:27        | *03:04/28/32/92 | *04:01/04/08+    |              |
| 3545         | Scornik,Juan               | *11:02/53        | *24:02                | *13:01             | *15:27        | *03:04          | *04:01/09N/30    | SSOP,SBT     |
| 8068         | Shanmugam,He               | *11              | *24                   | *13                | *15(B62)      |                 |                  | PCR-SSP      |
| 746          | Stamm,Luz                  | *11:53           | *24:02                | *13:01             | *15:27        | *03:04          | *04:01           | SSO,SSP,SBT  |
| 2020         | Sutton,Maggi               | *11:02:01/53     | *24:02:01:01/02:40    | *13:01:01          | *15:27:01     | *03:04:01       | *04:01:01:01     | PCR-SSP,SBT  |
| 13           | Tagliere,Jac               | *11:02           | *24:02                | *13:01             | *15:27        | *03:04          | *04:01           | SSP          |
| 4021         | Trachtenberg               | *11              | *24                   | *13                | *15           | *03             | *04              | SSO          |
| 5462         | Turner,E.V.                | *11:02:01/53     | *24:02:01             | *13:01             | *15:27:01     | *03:04:01       | *04:01:01        | SEQ,SSO,SSP  |
| 3186         | Watson,Narel               | *11              | *24                   | *13                | *15           | *03             | *04              | SSP          |

## SUMMARY

| Extract 509 (Caucasian) |            | Extract 510 (Japanese) |            | Extract 511 (Japanese) |            | Extract 512 (Chinese) |            |
|-------------------------|------------|------------------------|------------|------------------------|------------|-----------------------|------------|
| <u>48 labs</u>          |            | <u>48 labs</u>         |            | <u>48 labs</u>         |            | <u>48 labs</u>        |            |
| A*02                    | 35%        | A*11                   | 54%        | A*02                   | 56%        | A*11                  | 57%        |
| A*02:16/131             | 11%        | A*11:01                | 29%        | A*02:01                | 23%        | A*11:02/53            | 8%         |
| A*02:16:01G             | 2%         | A*1101                 | 6%         | A*0201                 | 6%         | A*1102/53             | 2%         |
| A*02:16P                | 2%         | A*11:01:01             | 9%         | A*02:01:01             | 11%        | A*11:02:01/53         | 7%         |
| A*02:16                 | 42%        | A*110101               | 2%         | A*020101               | 2%         | A*11:01               | 4%         |
| A*0216                  | 8%         | A*11                   | 100% TOTAL | A*02:01:01:01          | 2%         | A*1101                | 2%         |
| A*02                    | 100% TOTAL | A*26                   | 54%        | A*02                   | 100% TOTAL | A*11:02               | 8%         |
| A*03                    | 49%        | A*26:01                | 29%        | A*31                   | 56%        | A*11:02:01            | 2%         |
| A*03:01                 | 39%        | A*2601                 | 6%         | A*31:01                | 23%        | A*11:53               | 8%         |
| A*0301                  | 6%         | A*26:01:01             | 9%         | A*3101                 | 6%         | A*1153                | 2%         |
| A*03:01:01              | 6%         | A*260101               | 2%         | A*31:01:02             | 13%        | A*11                  | 100% TOTAL |
| A*03                    | 100% TOTAL | A*26                   | 100% TOTAL | A*310102               | 2%         | A*24                  | 61%        |
|                         |            |                        |            | A*31                   | 100% TOTAL | A*24:02               | 25%        |
|                         |            |                        |            |                        |            | A*2402                | 4%         |
|                         |            |                        |            |                        |            | A*24:02:01            | 6%         |
|                         |            |                        |            |                        |            | A*24:02:01:01         | 2%         |
|                         |            |                        |            |                        |            | A*24:63               | 2%         |
|                         |            |                        |            |                        |            | A*24                  | 100% TOTAL |
| <u>48 labs</u>          |            | <u>48 labs</u>         |            | <u>48 labs</u>         |            | <u>48 labs</u>        |            |
| B*51                    | 52%        | B*13                   | 40%        | B*15                   | 50%        | B*13                  | 38%        |
| B*51:01                 | 29%        | B*13:01                | 46%        | B*15:01                | 29%        | B*13:01               | 48%        |
| B*5101                  | 4%         | B*1301                 | 6%         | B*1501                 | 6%         | B*1301                | 6%         |
| B*51:01:01              | 13%        | B*13:01:01             | 6%         | B*15:01:01             | 9%         | B*13:01:01            | 4%         |
| B*510101                | 2%         | B*130101               | 2%         | B*15:01:01:01          | 6%         | B*130101              | 2%         |
| B*51                    | 100% TOTAL | B*13                   | 100% TOTAL | B*15                   | 100% TOTAL | B*13                  | 98% TOTAL  |
|                         |            | B*56                   | 27%        | B*67                   | 27%        | B*15                  | 35%        |
|                         |            | B*56:03                | 56%        | B*67:01                | 40%        | B*15:27               | 38%        |
|                         |            | B*5603                 | 15%        | B*6701                 | 12%        | B*1527                | 8%         |
|                         |            | B*56                   | 98% TOTAL  | B*67:01:01             | 17%        | B*15:27:01            | 17%        |
|                         |            |                        |            | B*670101               | 2%         | B*152701              | 2%         |
|                         |            |                        |            | B*67                   | 98% TOTAL  | B*15                  | 100% TOTAL |
| <u>45 labs</u>          |            | <u>45 labs</u>         |            | <u>45 labs</u>         |            | <u>44 labs</u>        |            |
| C*07                    | 36%        | C*01                   | 62%        | C*07                   | 49%        | C*03                  | 52%        |
| C*07:04/11              | 22%        | C*01:02                | 33%        | C*07:02/50             | 16%        | C*03:04               | 34%        |
| Cw*0704/11              | 2%         | Cw*0102                | 5%         | Cw*0702/50             | 4%         | Cw*0304               | 5%         |
| C*07:04:01/11           | 7%         | C*01                   | 100% TOTAL | C*07:02:01/50          | 4%         | C*03:04:01            | 9%         |
| Cw*070401/11            | 2%         |                        |            | Cw*070201/50           | 2%         | C*03                  | 100% TOTAL |
| C*07:04:01G             | 2%         | C*03                   | 56%        | C*07:02                | 13%        |                       |            |
| C*07:04P                | 4%         | C*03:04                | 33%        | Cw*0702                | 5%         | C*04                  | 59%        |
| C*07:04                 | 14%        | Cw*0304                | 4%         | C*07:02:01             | 7%         | C*04:01/09N/30        | 9%         |
| Cw*0704                 | 4%         | C*03:04:01             | 7%         | C*07                   | 100% TOTAL | C*04:01/30            | 2%         |
| C*07:04:01              | 7%         | C*03                   | 100% TOTAL |                        |            | C*04:01               | 18%        |
| C*07                    | 100% TOTAL |                        |            |                        |            | Cw*0401               | 5%         |
|                         |            |                        |            |                        |            | C*04:01:01            | 5%         |
|                         |            |                        |            |                        |            | C*04:01:01:01         | 2%         |
| C*15                    | 49%        |                        |            |                        |            | C*04                  | 100% TOTAL |
| C*15:02                 | 33%        |                        |            |                        |            |                       |            |
| Cw*1502                 | 7%         |                        |            |                        |            |                       |            |
| C*15:02:01              | 9%         |                        |            |                        |            |                       |            |
| Cw*150201               | 2%         |                        |            |                        |            |                       |            |
| C*15                    | 100% TOTAL |                        |            |                        |            |                       |            |

| INVESTIGATOR | CELL NO.1421 (Hispanic) | A1                 | A2 | B1               | B2               | C1               | C2              | method           |
|--------------|-------------------------|--------------------|----|------------------|------------------|------------------|-----------------|------------------|
| CTR          | NAME                    |                    |    |                  |                  |                  |                 |                  |
| 8070         | Ahn,Jaeie               | *02                |    | *35              | *40:08           | *03:04           | *04             | PCR-SSP          |
| 16           | Askar,Medhat            | *02:01:01          |    | *02:06:01        | *35:01/42        | *40:08           | *03:04:01       | PCR-RSSOP , SBT  |
| 774          | Cecka,J.Mich            | *02                |    | *02:06/106/126+  | *35              | *40:08           | *03             | SSP              |
| 5232         | Charlton,Ron            | *02:01             |    | *02:06           | *35:01           | *40:08           | *03:04          | SSP, RVSSO       |
| 4492         | Charron,D.              | NT                 |    |                  |                  |                  |                 |                  |
| 4492         | Charron_LR              | *02                |    | *35              | *40:08           | *03              | *04             | PCR-SSO          |
| 798          | Claas,F.H.J.            | *02:01:01          |    | *02:06:01        | *35:01:01:01     | *40:08           | *03:04:01       | SBT, SSP         |
| 3632         | Colombe,Beth            | *0201              |    | *206             | *3501            | *4008            | *0304           | SSO, SSP         |
| 5130         | Costeas,Paul            | *02:01             |    | *02:06           | *35:01           | *40:08           | *03:04          | SSO, SSP         |
| 779          | Daniel,Claud            | *02                |    |                  | *35              | *40(B61)         | *03(Cw10)       | PCR-SSP          |
| 3766         | Dunn,Paul               | *02:01G            |    | *02:06G          | *35              | *40:08           | *03             | SSO              |
| 5214         | Eckels/CPMC             | *02                |    | *02              | *35              | *4008            | *03(Cw10)       | SSO              |
| 4251         | Ellis,Thomas            | *02:01             |    | *02:06           | *35:01/42        | *40:08           | *03:04          | PCR-SSO , SEQ    |
| 762          | Fischer&Mayr            | *02:01/01L         |    | *02:06           | *35:01           | *40:08           | *03:04          | SBTEx1-4         |
| 792          | Gandhi,Manis            | *02:01             |    | *02:06           | *35:01/23/27/41+ | *40:08           | *03:04          | SSO, SSP         |
| 8043         | Gideoni,Osnat           | *02:01             |    | *02:06           | *35:01           | *40:08           | *03:04          | SSOP, SSP        |
| 810          | Hamdi,Nuha              | *2021              |    | *206             | *3501            | *4008            | *0304           | SSO              |
| 4269         | Hanau,Daniel            | *02:01:01          |    | *02:06:01        | *35:01:01        | *40:08           | *03:04:01       | PCR-SSP , SBT    |
| 3808         | Hogan,Patric            | *02                |    |                  | *35              | *40:08/13/35/68+ | *03             | SSP              |
| 745          | Holman,Richa            | *02:01:01          |    | *02:06:01        | *35:01/42        | *40:08           | *03:04:01       | SSO, SSP , SBT   |
| 771          | Israel,Shosh            | *02:01             |    | *02:06           | *35:01           | *40:08           | *03:04          | SSP, SBT         |
| 9003         | Israel_LR               | *02                |    |                  | *35              | *40              | *03             | PCR-SSO , SSP    |
| 859          | Kamoun,Malek            | *02:01             |    | *02:06           | *35:01/42        | *40:08           | *03:04          | *04:01           |
| 4337         | Kim,Tai-Gyu             | *02:01/09/43N/66+  |    | *02:06/126       | *35:01/40N/42+   | *40:08           | *03:04          | *04:01/09N/28+   |
| 168          | Klein,Tirza             | *02:01             |    | *02:06           | *35:01           | *40:08           | *03:04          | SBT              |
| 9000         | Klein_LR                | *02                |    |                  | *35              | *40              | *03             | PCR-SSP , SSO    |
| 278          | Lee,Jar-How             | *02:01/97/121/132+ |    | *02:06/126/170+  | *35:01/57        | *40:08           | *03:04          | PCR-SSP , SSO    |
| 6649         | Lim,Young Ae            | *02                |    |                  | *35              | *40(B61)         | *03(Cw10)       | SSP, RVSSOP      |
| 731          | Loewenthal,R            | *02:01:01          |    | *02:06:01        | *35:01:01        | *40:08           | *03             | SSP              |
| 759          | Lopez-Cepero            | *02:01/04/07/09+   |    | *02:06/10/21/28+ | *35:01/05/07/27+ | *40:08           | *03:04/06/07+   | *04:01/04/05+    |
| 23           | Mah,Helen               | *02                |    | *02:06           | *35              | *40:08           | *03:04          | RVSSO            |
| 8029         | Mani,Rama               | *02                |    |                  | *35              | *40              |                 | SSO              |
| 206          | McAlack-Hana            | *02                |    |                  | *35              | *40:08           | *03(Cw10)       | PCR-SSP          |
| 8001         | Rao,Prakash             | *02                |    |                  | *35              | *4008            | *0304/06/07/09+ | RVSSOP           |
| 3625         | Rees,Tracey             | *02:01             |    | *02:06           | *35:01           | *40:08           | *03:04/100/101  | RVSSOP , SSP     |
| 5200         | Reinke,Denni            | *02                |    |                  | *35              | *40(B61)         | *03(Cw10)       | PCR-SSP , SBT    |
| 1160         | Rosen-Bronso            | *02                |    |                  | *35              | *40:08           | *03             | SSP              |
| 793          | Rubocki,Ron             | *02                |    |                  | *35              | *40              | *03(Cw10)       | RVSSO . SSP      |
| 3519         | Semana,Gilbe            | *02:01             |    | *02:06           | *35:01           | *40:08           | *03:04          | SSP              |
| 769          | Tavoularis,S            | *02:01             |    | *02:06:01        | *35:01           | *40:08           | *03:04          | SBT, PCR-SSP     |
| 747          | Tiercy,Jean-            | *02:01:01:01/03    |    | *02:06:01        | *35:01:01:01/02  | *40:08           | *03:04:01G      | SSO, SBT, SSP    |
| 5451         | Tilanus,Marc            | *02:01:01          |    | *02:06:01        | *35:01:01        | *40:08           | *03:04:01       | P-SSO, SSP , SBT |
| 5462         | Turner,E.V.             | *02:01:01          |    | *02:06:01        | *35:01/42        | *40:08           | *03:04:01       | SEQ, SSO , SSP   |
| 5642         | Varnavidou-N            | *02                |    |                  | *35              | *40              | *03             | PCR-SSP , SSO    |
| 3186         | Watson,Narel            | *02                |    |                  | *35              | *40              | *03             | SSP              |

| INVESTIGATOR | CELL NO.1422 (Korean) | A1                      | A2              | B1               | B2               | C1            | C2            | method          |
|--------------|-----------------------|-------------------------|-----------------|------------------|------------------|---------------|---------------|-----------------|
| CTR          | NAME                  | A1                      | A2              | B1               | B2               | C1            | C2            |                 |
| 8070         | Ahn,Jaeie             | *01                     | *02             | *37              | *40:02           | *03:03        | *06           | PCR-SSP         |
| 16           | Askar,Medhat          | *01:01:01               | *02:01:01       | *37:01:01        | *40:02:01        | *03:03/20N    | *06:02        | PCR-RSSOP , SBT |
| 774          | Cecka,J.Mich          | *01                     | *02             | *37              | *40:02/56/57/78+ | *03           | *06           | SSP             |
| 5232         | Charlton,Ron          | *01:01                  | *02:01          | *37:01           | *40:02           | *03:03        | *06:02        | SSP, RVSSO      |
| 4492         | Charron,D.            | NT                      |                 |                  |                  |               |               |                 |
| 4492         | Charron_LR            | *01                     | *02             | *37              | *40              | *03           | *06           | PCR-SSO         |
| 798          | Claas,F.H.J.          | *01:01:01:01            | *02:01:01       | *37:01:01        | *40:02:01        | *03:03        | *06:02        | SBT, SSP        |
| 3632         | Colombe,Beth          | *0101                   | *0201           | *3701            | *4002            | *0303         | *0602         | SSO, SSP        |
| 5130         | Costeas,Paul          | *01:01                  | *02:01          | *37:01           | *40:02           | *03:03        | *06:02        | SSO, SSP        |
| 779          | Daniel,Claud          | *01                     | *02             | *37              | *40(B61)         | *03(Cw9)      | *06           | PCR-SSP         |
| 3766         | Dunn,Paul             | *01                     | *02             | *37              | *40:02G          | *03           | *06           | SSO             |
| 5214         | Eckels/CPMC           | *01                     | *02             | *37              | *40(B61)         | *03(Cw9)      | *06           | SSO             |
| 4251         | Ellis,Thomas          | *01:01/01N              | *02:01/01L      | *37:01           | *40:02           | *03:03/20N    | *06:02        | PCR-SSO, SEQ    |
| 762          | Fischer&Mayr          | *01:01                  | *02:01/01L      | *37:01           | *40:02           | *03:03        | *06:02        | SBTEx1-4        |
| 792          | Gandhi,Manis          | *01:01                  | *02:01          | *37:01           | *40:02           | *03:03        | *06:02        | SSO, SSP        |
| 8043         | Gideoni,Osna          | *01:01                  | *02:01          | *37:01           | *40:02           | *03:03        | *06:02        | SSOP, SSP       |
| 810          | Hamdi,Nuha            | *0101                   | *0201           | *37:01           | *40:02           | *0303         | *0602         | SSO             |
| 4269         | Hanau,Daniel          | *01:01:01               | *02:01:01       | *37:01:01        | *40:02:01        | *03:03:01     | *06:02:01     | PCR-SSP, SBT    |
| 3808         | Hogan,Patric          | *01                     | *02             | *37              | *40:02G          | *03           | *06           | SSP             |
| 745          | Holman,Richa          | *01:01                  | *02:01          | *37:01:01        | *40:02:01        | *03:03        | *06:02        | SSO, SSP, SBT   |
| 771          | Israel,Shosh          | *01:01                  | *02:01          | *37:01           | *40:02           | *03:03        | *06:02        | SSP, SBT        |
| 9003         | Israel_LR             | *01                     | *02             | *37              | *40              | *03           | *06           | PCR-SSO, SSP    |
| 859          | Kamoun,Malek          | *01:01                  | *02:01          | *37:01           | *40:02           | *03:03        | *06:02        |                 |
| 4337         | Kim,Tai-Gyu           | *01:01/04N/22N/32/34N+  | *02:01/09/43N+  | *37:01           | *40:02/56/97     | *03:03/20N/62 | *06:02        | SBT             |
| 168          | Klein,Tirza           | *01:01                  | *02:01          | *37:01           | *40:02           | *03:03        | *06:02        | PCR-SSP, SSO    |
| 9000         | Klein_LR              | *01                     | *02             | *37              | *40              | *03           | *06           | PCR-SSP, SSO    |
| 278          | Lee,Jar-How           | *01:01/01N/36-39/42/43+ | *02:01/97/121+  | *37:01/15/17/18+ | *40:02/56/97     | *03:03/62     | *06:02        | SSP, RVSSOP     |
| 6649         | Lim,Young Ae          | *01                     | *02             | *37              | *40(B61)         | *03(Cw9)      | *06           | SSP             |
| 731          | Loewenthal,R          | *01                     | *02             | *37:01:01        | *40:02:01        | *03           | *06           |                 |
| 759          | Lopez-Cepero          | *01:01/02/04N/06/09+    | *02:01/07/09+   | *37:01/03N       | *40:02/35/56/57+ | *03:03/11/12+ | *06:02/03/10+ | RVSSO           |
| 23           | Mah,Helen             | *01                     | *02             | *37              | *40:02/56/97     | *03:03/62     | *06:02        | SSO             |
| 8029         | Mani,Rama             | *01                     | *02             | *37              | *40              |               |               | PCR-SSP         |
| 206          | McAlack-Hana          | *01                     | *02             | *37              | *40(B61)         | *03(Cw9)      | *06           | RVSSOP          |
| 8001         | Rao,Prakash           | *01                     | *02             | *37              | *4002/35/56-58+  | *0303/11/20N+ | *06           | RVSSOP, SSP     |
| 3625         | Rees,Tracey           | *01:01                  | *02:01          | *37:01           | *40:02           | *03:03/20N/62 | *06:02/46N/55 | PCR-SSP, SBT    |
| 5200         | Reinke,Denni          | *01                     | *02             | *37              | *40(B61)         | *03(Cw9)      | *06           | SSP             |
| 1160         | Rosen-Bronso          | *01                     | *02             | *37              | *40              | *03           | *06           | RVSSO, SSP      |
| 793          | Rubocki,Ron           | *01                     | *02             | *37              | *40(B61)         | *03(Cw9)      | *06           | SSP             |
| 3519         | Semana,Gilbe          | *01:01                  | *02:01          | *37:01           | *40:02           | *03:03        | *06:02        | SBT, PCR-SSP    |
| 769          | Tavoularis,S          | *01:01/01N              | *02:01          | *37:01           | *40:02           | *03:03        | *06:02        | SSO, SBT, SSP   |
| 747          | Tiercy,Jean-          | *01:01:01:01/45/56N/81  | *02:01:01:01/03 | *37:01:01G       | *40:02:01/144N   | *03:03:01     | *06:02:01G    | P-SSO, SSP, SBT |
| 5451         | Tilanus,Marc          | *01:01:01:01            | *02:01:01       | *37:01:01        | *40:02:01        | *03:03:01     | *06:02:01     |                 |
| 5462         | Turner,E.V.           | *01:01:01:01/01:01:02N  | *02:01          | *37:01:01        | *40:02:01        | *03:03:01     | *06:02:01     | SEQ, SSO, SSP   |
| 5642         | Varnavidou-N          | *01                     | *02             | *37              | *40              | *03           | *06           | PCR-SSP, SSO    |
| 3186         | Watson,Narel          | *01                     | *02             | *37              | *40              | *03           | *06           | SSP             |

| INVESTIGATOR | CELL NO.1423 (Hispanic) |                   |           |               |                 |                   | method               |                 |
|--------------|-------------------------|-------------------|-----------|---------------|-----------------|-------------------|----------------------|-----------------|
| CTR          | NAME                    | A1                | A2        | B1            | B2              | C1                | C2                   |                 |
| 8070         | Ahn,Jaeie               | *02               | *68       | *35           | *48             | *04               | *08                  | PCR-SSP         |
| 16           | Askar,Medhat            | *02:06:01         | *68:03:01 | *35:12:01     | *48:01:01       | *04:01:01//*04:10 | *08:01:01/22//*08:21 | PCR-RSSOP , SBT |
| 774          | Cecka,J.Mich            | *02:06/126/127+   | *68       | *35           | *48:01/07/09/11 | *04               | *08                  | SSP             |
| 5232         | Charlton,Ron            | NT                |           |               |                 |                   |                      |                 |
| 4492         | Charron,D.              | *02:06/28/41/248+ | *68:03    | *35:12        | *48:01/20/22    | *04:01/54-70      | *08:01/24/26N/36N    |                 |
| 4492         | Charron_LR              | *02               | *68:03    | *35:12        | *48             | *04               | *08                  | PCR-SSO         |
| 798          | Claas,F.H.J.            | *02:06:01         | *68:03:01 | *35:12:01     | *48:01:01       | *04:01:01         | *08:01:01            | SBT,SSP         |
| 3632         | Colombe,Beth            | *0206             | *6803     | *3512         | *4801           | *0401             | *0801                | SSO,SSP         |
| 5130         | Costeas,Paul            | *02:06/28         | *68:03    | *35:12        | *48:01          | *04:01            | *08:01               | SSO,SSP         |
| 779          | Daniel,Claud            | *02               | *68       | *35           | *48             | *04               | *08                  | PCR-SSP         |
| 3766         | Dunn,Paul               | *02:06G           | *68:03    | *35:12        | *48             | *04               | *08                  | SSO             |
| 5214         | Eckels/CPMC             | *02               | *6803     | *3512         | *48             | *04               | *08                  | SSO             |
| 4251         | Ellis,Thomas            | *02:06            | *68:03    | *35:12        | *48:01          | *04:01            | *08:01/22            | PCR-SSO,SEQ     |
| 762          | Fischer&Mayr            | *02:06            | *68:03    | *35:12        | *48:01          | *04:01/09N/30     | *08:01/22            | SBTEx1-4        |
| 792          | Gandhi,Manis            | *02:06            | *68:03    | *35:12        | *48:01/09       | *04:01            | *08:01               | SSO,SSP         |
| 8043         | Gideoni,Osnra           | *02:06            | *68:03    | *35:12        | *48:01          | *04:01            | *08:01               | SSOP,SSP        |
| 810          | Hamdi,Nuha              | *2026             | *6803     | *3512         | *4801           | *0401             | *0801                | SSO             |
| 4269         | Hanau,Daniel            | *02:06            | *68:03    | *35:12        | *48:01          | *04:01            | *08:01               | SBT             |
| 3808         | Hogan,Patric            | *02               | *68       | *35:10/12/13+ | *48             | *04               | *08                  | SSP             |
| 745          | Holman,Richa            | *02:06            | *68:03    | *35:12:01     | *48:01:01       | *04:01:01         | *08:01:01            | SSO,SSP,SBT     |
| 771          | Israel,Shosh            | *02:06            | *68:03    | *35:12        | *48:01          | *04:01            | *08:01               | SSP,SBT         |
| 9003         | Israel_LR               | *02               | *68       | *35           | *48             | *04               | *08                  | PCR-SSO,SSP     |
| 859          | Kamoun,Malek            | *02:06            | *68:03    | *35:12        | *48:01          | *04:01            | *08:01/22            |                 |
| 4337         | Kim,Tai-Gyu             | *02:06/126        | *68:03    | *35:12        | *48:01/09       | *04:01/09N/28/30+ | *08:01/20/22/24      | SBT             |
| 168          | Klein,Tirza             | *02:06            | *68:03    | *35:12        | *48:01          | *04:01            | *08:01               | PCR-SSP,SSO     |
| 9000         | Klein_LR                | *02               | *68       | *35           | *48             | *04               | *08                  | PCR-SSP,SSO     |
| 278          | Lee,Jar-How             | *02:06/126/127+   | *68:03    | *35:12        | *48:01          | *04:01            | *08:01               | SSP,RVSSOP      |
| 6649         | Lim,Young Ae            | *02               | *68       | *35           | *48             | *04               | *08                  | SSP             |
| 731          | Loewenthal,R            | *02:06            | *68:03    | *35:12:01     | *48:01:01       | *04               | *08                  |                 |
| 759          | Lopez-Cepero            | *02:06/10/21/28+  | *68:03    | *35:12        | *48:01/09/11    | *04:01/05/07/09N+ | *08:01/08/20-22+     | RVSSO           |
| 23           | Mah,Helen               | *02:06            | *68:03    | *35:12        | *48:01/09       | *04               | *08                  | SSO             |
| 8029         | Mani,Rama               | *02               | *68       | *35           | *48             |                   |                      | PCR-SSP         |
| 206          | McAlack-Hana            | *02               | *68:03    | *35:12        | *48             | *04               | *08                  | RVSSOP          |
| 8001         | Rao,Prakash             | *02               | *68       | *35           | *48             | *04               | *08                  | RVSSOP,SSP      |
| 3625         | Rees,Tracey             | *02:06            | *68:03    | *35:12        | *48:01          | *04:01/28/30/41+  | *08:01/20/22/24      | PCR-SSP,SBT     |
| 5200         | Reinke,Denni            | *02               | *68       | *35           | *48             | *04               | *08                  | SSP             |
| 1160         | Rosen-Bronso            | *02               | *68:03    | *35:12        | *48             | *04               | *08                  | RVSSO,SSP       |
| 793          | Rubocki,Ron             | *02               | *68       | *35           | *48             | *04               | *08                  | SSP             |
| 3519         | Semana,Gilbe            | *02:06            | *68:03    | *35:12        | *48:01          | *04:01            | *08:01               | SBT,PCR-SSP     |
| 769          | Tavoularis,S            | *02:06            | *68:03    | *35:12:01     | *48:01:01       | *04:01            | *08:01:01            | SSO,SBT,SSP     |
| 747          | Tiercy,Jean-            | NT                |           |               |                 |                   |                      |                 |
| 5451         | Tilanus,Marc            | *02:06:01         | *68:03:01 | *35:12:01     | *48:01:01       | *04:01:01         | *08:01:01            |                 |
| 5462         | Turner,E.V.             | *02:06            | *68:03    | *35:12:01     | *48:01:01       | *04:01:01         | *08:01:01            | SEQ,SSO,SSP     |
| 5642         | Varnavidou-N            | *02               | *68       | *35           | *48             | *04               | *08                  | PCR-SSP,SSO     |
| 3186         | Watson,Narel            | *02               | *68       | *35           | *48             | *04               | *08                  | SSP             |

| INVESTIGATOR | CELL NO.1424 (Hispanic) | A1                     | A2                  | B1                   | B2              | C1                  | C2        | method        |
|--------------|-------------------------|------------------------|---------------------|----------------------|-----------------|---------------------|-----------|---------------|
| CTR          | NAME                    |                        |                     |                      |                 |                     |           |               |
| 8070         | Ahn,Jaeie               | *02                    |                     | *39                  |                 | *07                 |           | PCR-SSP       |
| 16           | Askar,Medhat            | *02:01:01              | *02:06:01           | *39:02:02            | *39:05:01       | *07:02:01/50        |           | PCR-RSSOP/SBT |
| 774          | Cecka,J.Mich            | *02                    | *02:06/106/126/127+ | *39                  |                 | *07                 |           | SSP           |
| 5232         | Charlton,Ron            | *02:01                 | *02:06              | *39:01               | *39:13          | *07:02              | *07:02    | SSP, RVSSO    |
| 4492         | Charron,D.              | *02:01/200-266         | *02:06/85/144/248+  | *39:01/02/13         | *39:05/13/56    | *07:02/66/100-149   |           |               |
| 4492         | Charron_LR              | *02                    | *02                 | *39                  | *39             | *07                 |           | PCR-SSO       |
| 798          | Claas,F.H.J.            | *02:01:01              | *02:06:01           | *39:01:01            | *39:13:01       | *07:02:01           |           | SBT, SSP      |
| 3632         | Colombe,Beth            | *0201                  | *0206               | *3901//*3902         | *3913//*3905    | *0702               |           | SSO, SSP      |
| 5130         | Costeas,Paul            | *02:01                 | *02:06              | *39:02/13            | *39:01/05       | *07:02              |           | SSO, SSP      |
| 779          | Daniel,Claud            | *02                    |                     | *39                  | *39             | *07                 |           | PCR-SSP       |
| 3766         | Dunn,Paul               | *02:01G                | *02:06G             | *39:01G              | *39:05G         | *07                 |           | SSO           |
| 5214         | Eckels/CPMC             | *02                    | *02                 | *39                  | *39             | *07                 | *07       | SSO           |
| 4251         | Ellis,Thomas            | *02:01                 | *02:06              | *39:02               | *39:05          | *07:02/50           | *07:02/50 | PCR-SSO, SEQ  |
| 762          | Fischer&Mayr            | *02:01/01L             | *02:06              | *39:02               | *39:05          | *07:02/50           |           | SBTEx1-4      |
| 792          | Gandhi,Manis            | *02:01                 | *02:06              | *39:02/13            | *39:05          | *07:02              |           | SSO, SSP      |
| 8043         | Gideoni,Osnra           | *02:01                 | *02:06              | *39:01/02            | *39:13/05       | *07:02              |           | SSOP, SSP     |
| 810          | Hamdi,Nuha              | *0201                  | *0206               | *3930                | *3913           | *0702               | *0702     | SSO           |
| 4269         | Hanau,Daniel            | *02:01/01L             | *02:06              | *39:02               | *39:05          | *07:02              |           | SBT           |
| 3808         | Hogan,Patric            | *02                    |                     | *39:02/08/13/23/49   | *39             | *07                 |           | SSP           |
| 745          | Holman,Richa            | *02:01:01              | *02:06:01           | *39:02/13            | *39:01/05       | *07:02:01           |           | SSO, SSP, SBT |
| 771          | Israel,Shosh            | *02:01                 | *02:06              | *39:01/02            | *39:13/05       | *07:02              |           | SSP, SBT      |
| 9003         | Israel_LR               | *02                    |                     | *39                  |                 | *07                 |           | PCR-SSO, SSP  |
| 859          | Kamoun,Malek            | *02:01                 | *02:06              | *39:02               | *39:05          | *07:02              |           |               |
| 4337         | Kim,Tai-Gyu             | *02:01/09/43N/66/75+   | *02:06/126          | *39:02               | *39:05          | *07:02/50/66/74     |           | SBT           |
| 168          | Klein,Tirza             | *02:01                 | *02:06              | *39:02               | *39:05          | *07:02              |           | PCR-SSP, SSO  |
| 9000         | Klein_LR                | *02                    |                     | *39                  |                 | *07                 |           | PCR-SSP, SSO  |
| 278          | Lee,Jar-How             | *02:01/97/121/132/134+ | *02:06/126/127/170+ | *39:01/01L/02/26/42+ | *39:05/13/56    | *07:02              |           | SSP, RVSSOP   |
| 6649         | Lim,Young Ae            | *02                    |                     | *39                  |                 | *07                 |           | SSP           |
| 731          | Loewenthal,R            | *02:01:01              | *02:06:01           | *39:01/02            | *39:13:01/05:01 | *07:02:01/50/56     |           |               |
| 759          | Lopez-Cepero            | *02:01/04/07/09/15N+   | *02:06/10/21/28/41+ | *39:02/01/13/15/19+  | *39:05/13/49    | *07:02/05/12/23/25+ |           | RVSSO         |
| 23           | Mah,Helen               | *02                    | *02:06              | *39                  | *39:05/13/49    | *07                 | *07       | SSO           |
| 8029         | Mani,Rama               | *02                    |                     | *39                  |                 |                     |           | PCR-SSP       |
| 206          | McAlack-Hana            | *02                    | *02                 | *39(B3901)           | *39             | *07                 | *07       | RVSSOP        |
| 8001         | Rao,Prakash             | *02                    |                     | *39                  |                 | *07                 |           | RVSSOP, SSP   |
| 3625         | Rees,Tracey             | *02:01                 | *02:06              | *39:01//*39:02       | *39:13//*39:05  | *07:02/50           |           | PCR-SSP, SBT  |
| 5200         | Reinke,Denni            | *02                    |                     | *39                  |                 | *07                 |           | SSP           |
| 1160         | Rosen-Bronso            | *02                    |                     | *39                  |                 | *07                 |           | RVSSO, SSP    |
| 793          | Rubocki,Ron             | *02                    |                     | *39                  |                 | *07                 |           | SSP           |
| 3519         | Semana,Gilbe            | *02:01                 | *02:06              | *39:02               | *39:05          | *07:02              |           | SBT, PCR-SSP  |
| 769          | Tavoularis,S            | *02:01                 | *02:06:01           | *39:01/01N/02        | *39:05/13       | *07:02              |           | SSO, SBT, SSP |
| 747          | Tiercy,Jean-            | NT                     |                     |                      |                 |                     |           |               |
| 5451         | Tilanus,Marc            | *02:01:01              | *02:06:01           | *39:02:02            | *39:05:01       | *07:02:01           |           |               |
| 5462         | Turner,E.V.             | *02:01:01              | *02:06:01           | *39:02:02            | *39:05:01       | *07:02:01           |           | SEQ, SSO, SSP |
| 5642         | Varnavidou-N            | *02                    |                     | *39                  |                 | *07                 |           | PCR-SSP, SSO  |
| 3186         | Watson,Narel            | *02                    |                     | *39                  |                 | *07                 |           | SSP           |

## SUMMARY

| Cell 1421 (Hispanic) |            | Cell 1422 (Korean) |            | Cell 1423 (Hispanic) |            | Cell 1424 (Hispanic) |            |
|----------------------|------------|--------------------|------------|----------------------|------------|----------------------|------------|
| <u>44 labs</u>       |            | <u>44 labs</u>     |            | <u>43 labs</u>       |            | <u>44 labs</u>       |            |
| A*02                 | 52%        | A*01               | 54%        | A*02                 | 53%        | A*02                 | 55%        |
| A*02:01              | 27%        | A*01:01            | 30%        | A*02:06              | 35%        | A*02:01              | 27%        |
| A*0201               | 5%         | A*0101             | 5%         | A*0206               | 5%         | A*0201               | 5%         |
| A*02:01:01           | 16%        | A*01:01:01         | 6%         | A*02:06:01           | 7%         | A*02:01:01           | 13%        |
| A*02                 | 100% TOTAL | A*01:01:01:01      | 5%         | A*02                 | 100% TOTAL | A*02                 | 100% TOTAL |
| A*02                 | 48%        | A*01               | 100% TOTAL | A*68                 | 30%        | A*02                 | 50%        |
| A*02:06              | 27%        | A*02               | 57%        | A*68:03              | 56%        | A*02:06              | 29%        |
| A*0206               | 5%         | A*02:01            | 29%        | A*6803               | 7%         | A*0206               | 5%         |
| A*02:06:01           | 20%        | A*0201             | 5%         | A*68:03:01           | 7%         | A*02:06:01           | 16%        |
| A*02                 | 100% TOTAL | A*02:01:01         | 9%         | A*68                 | 100% TOTAL | A*02                 | 100% TOTAL |
| A*02                 | A*02       | A*02               | 100% TOTAL | A*68                 | 100% TOTAL | A*02                 | 100% TOTAL |
| <u>44 labs</u>       |            | <u>44 labs</u>     |            | <u>43 labs</u>       |            | <u>44 labs</u>       |            |
| B*35                 | 55%        | B*37               | 50%        | B*35                 | 30%        | B*39                 | 71%        |
| B*35:01/42           | 11%        | B*37:01            | 32%        | B*35:12              | 47%        | B*39:01              | 2%         |
| B*35:01              | 20%        | B*3701             | 2%         | B*3512               | 7%         | B*39:01:01           | 2%         |
| B*3501               | 5%         | B*37:01:01         | 16%        | B*35:12:01           | 16%        | B*39:02              | 16%        |
| B*35:01:01           | 7%         | B*37               | 100% TOTAL | B*35                 | 100% TOTAL | B*39:02:02           | 7%         |
| B*35:01:01:01        | 2%         | B*40               | 50%        | B*48                 | 53%        | B*3930               | 2%         |
| B*35                 | 100% TOTAL | B*40:02            | 32%        | B*48:01              | 26%        | B*39                 | 100% TOTAL |
| B*40                 | 23%        | B*4002             | 2%         | B*4801               | 5%         | B*39                 | 59%        |
| B*40:08              | 68%        | B*40:02:01         | 16%        | B*48:01:01           | 16%        | B*39:05/13           | 9%         |
| B*4008               | 9%         | B*40               | 100% TOTAL | B*48                 | 100% TOTAL | B*39:05              | 19%        |
| B*40                 | 100% TOTAL | B*40               | 100% TOTAL | B*48                 | 100% TOTAL | B*39:05:01           | 7%         |
|                      |            |                    |            |                      |            | B*39:13              | 2%         |
|                      |            |                    |            |                      |            | B*3913               | 2%         |
|                      |            |                    |            |                      |            | B*39:13:01           | 2%         |
|                      |            |                    |            |                      |            | B*39                 | 100% TOTAL |
| <u>43 labs</u>       |            | <u>43 labs</u>     |            | <u>42 labs</u>       |            | <u>43 labs</u>       |            |
| C*03                 | 46%        | C*03               | 42%        | C*04                 | 60%        | C*07                 | 51%        |
| C*03:04              | 35%        | C*03:03/20N/63     | 4%         | C*04:01              | 26%        | C*07:02/50           | 9%         |
| Cw*0304              | 5%         | C*03:03/20N        | 5%         | Cw*0401              | 5%         | C*07:02              | 26%        |
| C*03:04:01           | 14%        | C*03:03/63         | 5%         | C*04:01:01           | 9%         | Cw*0702              | 5%         |
| C*03                 | 100% TOTAL | C*03:03            | 30%        | C*04                 | 100% TOTAL | C*07:02:01           | 9%         |
| C*04                 | 56%        | C*03:03:01         | 9%         | C*08                 | 64%        | C*07                 | 100% TOTAL |
| C*04:01              | 25%        | C*03               | 100% TOTAL | C:08:01              | 19%        |                      |            |
| Cw*0401              | 5%         | C*06               | 49%        | Cw*0801              | 5%         |                      |            |
| C*04:01:01           | 14%        | C*06:02            | 39%        | C:08:01:01           | 12%        |                      |            |
| C*04                 | 100% TOTAL | Cw*0602            | 5%         | C*08                 | 100% TOTAL |                      |            |
|                      |            | C*06:02:01         | 7%         |                      |            |                      |            |
|                      |            | C*06               | 100% TOTAL |                      |            |                      |            |

INTERNATIONAL CELL EXCHANGE

|                |    |     |   |      |    |   |          |            |     |   |   |       |   |   |   |     |     |     |   |   |   |     |     |    |
|----------------|----|-----|---|------|----|---|----------|------------|-----|---|---|-------|---|---|---|-----|-----|-----|---|---|---|-----|-----|----|
| Alonso, Anton  | 8  | 90  | + | +40  | +  | + | +        |            | 90  | + | + | +     | + | + | + | +   | +   | 90  | + | + | + | +   | +   | +  |
| Alvarez, Carr  | 3  | 80  | + | +    | +  | + | +        |            | 85  | + | + | +40   | + | + | + |     | 80  | +   | + | + | + | +   | 16  | +  |
| Askar, Medhat  | 2  | 95  | + | +61  | +  | + | +        | B61V, B48V | 95  | + | + | +     | + | + | + | +   | 95  | +   | + | + | + | +   | B45 |    |
| Cecka, J. Mich | 3  | 95  | + | +61  | +  | + |          |            | 95  | + | + | +     | + | + | + |     | 95  | +   | + | + | + | +   | BW4 |    |
| Chan MD, Soh   | 7  | 80  | + | +48  | +  | + | +        | CW8, A68   | 80  | + | + | 40    | + | + | + | B47 | NT  |     |   |   |   |     | A68 |    |
| Charron, D. P  | 4  | 70  | + | +    | +  |   |          |            | 80  | + | + | +40   |   |   |   |     | 80  | +   | + | + | + | +   | 16  | +  |
| Claas, F.H.J.  | 6  | 85  | + | +40  | +  | + | +        |            | 85  | + | + | +     | + | + | + |     | 85  | +28 | + | + | + | +   | 50  | +  |
| Dunk, Arthur   | 2  | 98  | + | +61  | +  | + | +        |            | 98  | + | + | +     | + | + | + |     | 98  | +28 | + | + | + | +   | 98  | +  |
| Dunn, Paul Dr  | 6  | 98  | + | +48  | +  | + |          |            | 98  | + | + | +     | + | + | + |     | 95  | +   | + | + | + | +   | 93  | +  |
| Enczmann, J.   | 7  | 95  | + | +61  | +  | + |          |            | 95  | + | + | +     | + | + | + |     | 95  | +   | + | + | + | +   | 95  | +  |
| Fort, Marylis  | 7  | 98  | + | +08  | +  | + |          |            | 98  | + | + | +     | + | + | + |     | 98  | +   | + | + | + | +   | 98  | +  |
| Gideoni, Osna  | 6  | 90  | + | +    | +  | + | +        |            | 90  | + | + | +     | + | + | + |     | 100 | +   | + | + | + | +   | 100 | +  |
| Gomez, Carmen  | 7  | 95  | + | +40  | +  | + | +        |            | 95  | + | + | +     | + | + | + |     | 95  | +   | + | + | + | +   | 95  | +  |
| Gomez, Carmen  | 7  | 98  | + | +40  | +  | + |          |            | 98  | + | + | +     | + | + | + |     | 98  | +   | + | + | + | +   | 98  | +  |
| Gottwald, Hes  | 6  | 70  | + | +61  | +  | + | +        |            | 100 | + | + | +     | + | + | + |     | 95  | +   | + | + | + | +   | 95  | +  |
| Hahn, Amy B.   | 2  | 99  | + | + 10 | +  | + | B81      |            | 99  | + | + | 10    | + | + | + | B60 | 93  | +   | + | + | + | +   | B81 | 97 |
| Harville, Ter  | 2  | 95  | + | +40  | 10 | + | +        | B40V       | 95  | + | + | W9    | + | + | + |     | 95  | +28 | + | + | + | +   | 95  | +  |
| Hirankarn MD   | 6  | 96  | + | +48  | +  | + | B40, A28 |            | 95  | + | + | +     | + | + | + |     | 92  | +28 | + | + | + | +   | 91  | +  |
| Hogan, Patric  | 10 | ??? | + | +40  | +  | + | +        |            | ??? | + | + | +     | + | + | + |     | ??? | +   | + | + | + | +   | ??? | +  |
| Holdsworth, R  | 8  | 95  | + | +40  | +  | + |          |            | 95  | + | + | +40   | + | + | + |     | 95  | +   | + | + | + | +   | 90  | +  |
| Holman, Richa  | 6  | 95  | + | +40  |    |   |          |            | 98  | + | + | +     |   |   |   |     | 95  | +   | + | + | + | +   | 95  | +  |
| Hubbell, Char  | 3  | 95  | + | +08  | +  | + |          |            | 95  | + | + | +     | + | + | + |     | 95  | +   | + | + | + | +   | 95  | +  |
| Israel, Shosh  | 6  | 95  | + | +61  | +  | + | +        |            | 95  | + | + | +     | + | + | + |     | 95  | +   | + | + | + | +   | 95  | +  |
| Keown, Paul M  | 3  | 99  | + | +    | +  | + |          |            | 99  | + | + | +40   | + | + | + |     | 99  | +28 | + | + | + | +   | 99  | +  |
| Klein, Tirza   | 6  | 70  | + | +60  | +  | + | +        |            | 80  | + | + | +     | + | + | + | B60 | 80  | +   | + | + | + | +   | NT  |    |
| Kvam, Vonnett  | 3  | 98  | + | +08  | +  | + | +        |            | 98  | + | + | +     | + | + | + |     | 98  | +28 | + | + | + | +   | 98  | +  |
| Lardy, N.M. D  | 6  | 90  | + | +61  | +  | + |          |            | 90  | + | + | +     | + | + | + |     | 90  | +28 | + | + | + | +   | 90  | +  |
| Lo, Raymundo   | 7  | 98  | + | +61  |    |   | A24      |            | 98  | + | + | +     |   |   |   |     | 98  | +   | + |   |   |     | B81 | 98 |
| Loewenthal, M  | 5  | 90  | + | +    | +  | + | +        |            | 90  | + | + | +     | + | + | + |     | 90  | +   | + | + | + | +   | 90  | +  |
| MacCann, Eile  | 3  | 98  | + | +    | +  | + |          |            | 98  | + | + | +     | + | + | + |     | 98  | +   | + | + | + | +   | 98  | +  |
| Mah, Helen     | 3  | 98  | + | +40  | +  | + | +        | B40V       | 98  | + | + | +     | + | + | + |     | 98  | +   | + | + | + | +   | 98  | +  |
| McAlack-Hana   | 2  | 98  | + | + 10 | +  | + |          |            | 98  | + | + | +40W9 | + | + | + |     | 98  | +   | + | + | + | +   | 98  | +  |
| McCluskey, Ja  | 7  | 85  | + | +48  | +  | + | +        |            | 85  | + | + | +40   | + | + | + |     | 85  | +28 | + | + | + | +   | 85  | +  |
| Meyer, Pieter  | 9  | 75  | + | +48  | +  | + | A68      |            | 90  | + | + | +     | + | + | + |     | 80  | +   | + | + | + |     | B60 | 75 |
| Mpunktsha, Loy | 7  | 50  | + | +    |    |   |          |            | 50  | + | + |       |   |   |   | B60 | 50  | +28 | + |   |   | B60 | 50  |    |
| Norin, Allen   | 3  | 98  | + | +    | +  | + |          | A68, B81   | 98  | + | + | +     | + | + | + |     | 98  | +   | + | + | + | +   | 99  | +  |
| Pancoska, Car  | 2  | 97  | + | +08  | 10 | + | +        | B61V       | 98  | + | + | +10   | + | + |   |     | 98  | +   | + | + | + | +   | 97  | +  |
| Permpikul, Ve  | 6  | 80  | + | +    | +  | + |          |            | 80  | + | + | +     | + | + | + |     | 85  | +   | + | + | + | +   | 85  | +  |
| Pollack, Mari  | 2  | 98  | + | +48  | 10 | + | +        | B48S       | 98  | + | + | +     | + | + | + |     | 98  | +   | + | + | + | +   | 98  | +  |
| Rees, Tracey   | 6  | 80  | + | +40  | +  | + | +        | B40S       | 90  | + | + | +     | + | + | + |     | 90  | +   | + | + | + | +   | 90  | +  |
| Rosen-Bronso   | 3  | 95  | + | +61  | +  | + |          |            | 95  | + | + | +     | + | + | + |     | 95  | +   | + | + | + | +   | 95  | +  |
| Rubocki, Rona  | 2  | 98  | + | +    | +  | + |          |            | 98  | + | + | +     | + | + | + |     | 98  | +28 | + | + | + | +   | 98  | +  |
| Semana MD, Gi  | 3  | 99  | + | +40  | +  | + |          |            | 99  | + | + | +40   | + | + | + |     | 99  | +28 | + | + | + | +   | 99  | +  |
| Shai, Isaac    | 8  | 92  | + | +40  | +  | + | +        |            | 90  | + | + | +40   | + | + | + |     | 88  | +   | + | + | + |     | B60 | 92 |
| Stamm, Luz     | 9  | 80  | + | +40  | +  | + | +        | B40V       | 80  | + | + | +     | + | + | + |     | 80  | +   | + | + | + | +   | 80  | +  |
| Stavropoulos   | 2  | 97  | + | +40  | +  | + | +        |            | 97  | + | + | +     | + | + | + |     | 97  | +28 | + | + | + | +   | 98  | +  |
| Tagliere, Jac  | 2  | 100 | + | +    | +  | + | +        |            | 100 | + | + | +40   | + | + | + |     | 100 | +   | + | + | + | +   | 100 | +  |
| Tiercy, Jean-  | 6  | 90  | + | +61  | +  | + |          |            | 90  | + | + | +     | + | + | + |     |     |     |   |   |   | NT  |     |    |
| Tilanus, Marc  | 7  | 90  | + | +    | +  | + |          |            | 90  | + | + | +     | + | + | + |     | 90  | +28 | + | + | + | +   | 90  | +  |
| Varnavidiou-N  | 6  | 98  | + | +    | +  | + |          |            | 98  | + | + | +     | + | + | + |     | 98  | +   | + | + | + | +   | 98  | +  |

## INTERNATIONAL CELL EXCHANGE

|              | CELL NO.1421 |     |           |        |           |             | CELL NO.1422 |           |             |        |        |     | CELL NO.1423 |        |        |     |   |     | CELL NO.1424 |   |  |  |  |  |  |
|--------------|--------------|-----|-----------|--------|-----------|-------------|--------------|-----------|-------------|--------|--------|-----|--------------|--------|--------|-----|---|-----|--------------|---|--|--|--|--|--|
|              | V            |     | V         |        | V         |             | V            |           | V           |        | V      |     | V            |        | V      |     | V |     | V            |   |  |  |  |  |  |
|              | I            |     | (HISP)    |        | I         |             | (KORE)       |           | I           |        | (HISP) |     | I            |        | (HISP) |     | I |     | (HISP)       |   |  |  |  |  |  |
| INVESTIGATOR | A A          | B B | C C       | B      | A A       | B B         | C C          | B B       | A A         | A B    | B B    | C C | B            | A A    | B B    | C C | B | A A | B C          | B |  |  |  |  |  |
| DAYS         | B 2          | 3 4 | W W W     |        | B 1 2 3 6 | W W W W     |              | B 2 6 3 4 | W W W       | B 2    | 3      | W W |              | B 2    | 3      | W W |   |     |              |   |  |  |  |  |  |
| NAME         | OLD          | %   | 5 0 3 4 6 | OTHERS | %         | 7 1 3 6 4 6 | OTHERS       | %         | 8 5 8 4 8 6 | OTHERS | %      | 9   | 7 6          | OTHERS |        |     |   |     |              |   |  |  |  |  |  |
|              | X            |     |           |        |           |             |              |           |             |        |        |     |              |        |        |     |   |     |              |   |  |  |  |  |  |

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|              |    |    |   |     |   |   |   |     |    |   |   |     |     |   |   |   |    |   |    |   |   |   |     |    |   |   |   |
|--------------|----|----|---|-----|---|---|---|-----|----|---|---|-----|-----|---|---|---|----|---|----|---|---|---|-----|----|---|---|---|
| Walter Reed  | 3  | 99 | + | +   | + | + | + | B71 | 99 | + | + | +   | +10 | + | + | + | 99 | + | +  | + | + | + | B70 |    |   |   |   |
| Watson,Narel | 10 | 95 | + | +40 |   |   |   |     | 95 | + | + | +40 |     |   |   |   | 95 | + | 28 | + | + |   |     | 95 | + | + |   |
| Wisecarver M | 7  | 95 | + | +61 |   |   |   |     | 95 | + | + | +   | +   |   |   |   | 98 | + | +  | + | + | + |     | 95 | + | + | + |

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\* \*  
\* SUMMARY TABLE \*  
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| (HISP)<br>**** CELL 1421 ****<br>(53 SAMPLES TYPED) |          | (KORE)<br>**** CELL 1422 ****<br>(53 SAMPLES TYPED) |          | (HISP)<br>**** CELL 1423 ****<br>(51 SAMPLES TYPED) |          | (HISP)<br>**** CELL 1424 ****<br>(51 SAMPLES TYPED) |          |
|---|----------|---|----------|---|----------|---|----------|
| A2 100.0%   | (100.0%) | A1 100.0%   |          | A2 100.0%   | (100.0%) | A2 100.0%   | (100.0%) |
| B35 100.0%  |          | A2 100.0%   | (100.0%) | A68 72.5%   |          | B39 90.2%   |          |
| B40X 0.0%   |          | B37 98.1%   |          | A28 27.5%   | (100.0%) | B16 9.8%  |          |
| B60 1.9%  |          | B61 69.8%   |          | B35 100.0%  |          | CW7 54.9%   |          |
| B61 20.8%   |          | B40 20.8%   |          | B48 92.2%   |          | BW6 86.3%   |          |
| B48 11.3%   |          | ( 90.6%)  |          | CW4 62.7%   |          |   |          |
| 4008 7.5%   |          |   |          | CW8 37.3%   |          |   |          |
| B40 28.3%   |          |   |          | BW6 86.3%   |          |   |          |
| ( 69.8%)  |          |   |          |   |          |   |          |
| CW3 47.2%   |          | CW3 49.1%   |          |   |          |   |          |
| CW10 9.4%   |          | CW9 3.8%  |          |   |          |   |          |
| ( 56.6%)  |          | CW10 5.7%   |          |   |          |   |          |
| CW4 56.6%   |          | ( 58.5%)  |          |   |          |   |          |
| BW6 86.8%   |          | CW6 49.1%   |          |   |          |   |          |
|   |          | BW4 86.8%   |          |   |          |   |          |
|   |          | BW6 86.8%   |          |   |          |   |          |
| (OTHERS FOUND)                                      |          | (OTHERS FOUND)                                      |          | (OTHERS FOUND)                                      |          | (OTHERS FOUND)                                      |          |
| A68 5.7%  |          | B60 9.4%  |          | B60 5.9%  |          | B70 5.9%  |          |
| B40V 5.7%   |          | CW9 3.8%  |          | B81 3.9%  |          | B35 2.0%  |          |
| B81 3.8%  |          | B47 1.9%  |          |   |          | B50 2.0%  |          |
| B61V 3.8%   |          |   |          |   |          | B45 2.0%  |          |
| B48S 1.9%   |          |   |          |   |          | B41 2.0%  |          |
| B40S 1.9%   |          |   |          |   |          | A28 2.0%  |          |
| A28 1.9%  |          |   |          |   |          | A68 2.0%  |          |
| B40 1.9%  |          |   |          |   |          | B37 2.0%  |          |
| B71 1.9%  |          |   |          |   |          | B75 2.0%  |          |
| CW8 1.9%  |          |   |          |   |          | BW4 2.0%  |          |
| A24 1.9%  |          |   |          |   |          |   |          |
| B48V 1.9%   |          |   |          |   |          |   |          |

\*\*\* 53 LABORATORIES REPLIED \*\*\*

\*\*\*\*\* NEXT SHIPMENT: 05/04/2011 \*\*\*\*\*