

## AFDT

### Proficiency Testing Program Report

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## AFDT Proficiency Testing Results – July 9, 2007

### SUMMARY REPORT Cell Sendout:

The July 2007 AFDT (American Foundation for Donation and Transplantation) (former SEOPF) Proficiency Testing challenges were graciously sent out by Drs. Marian Tamodong-Reside and Pat Supon at the Laboratories at Bonfils in Denver, Colorado. AFDT Proficiency Testing sends out 5 anti-coagulated whole blood samples per challenge. AFDT Proficiency Testing (AFDT-PT) will, as closely as possible, send proficiency testing (PT) samples that most represent actual patient samples that are received by labs for clinical testing. Federal regulations require that all PT samples must be handled and tested exactly like those clinical samples that are received in each laboratory on a routine basis. This will more accurately assess and predict how a clinical Histocompatibility lab functions on a day-to-day basis. We feel that these AFDT Proficiency Testing Samples meet all mandates and guidelines. The results obtained and graded are therefore more relevant and indicative of actual clinical situations and thereby in keeping with the intent of CLIA, UNOS, ASHI and CAP standards. Labs may test by any methods employed and report results as they would normally do on a clinical report.

As a reminder, there were some modifications in the grading criteria in 2006, which still apply in 2007. For a detailed set of instructions and current policies, please refer to the AFDT/SEOPF web site ([www.seopf.org](http://www.seopf.org)). Results are now graded and the definition of consensus changed in 2006 from 85% to 80%. **Consensus** is now reached when 80% or more of the labs report a particular result. Results reported by 50% of the labs will be considered as the **majority** of the labs. All reported antigens and alleles will be graded if a sufficient number of labs (8) respond. In accordance with CLIA requirements, each cell with **counted as a miss if any consensus antigen is incorrect**. Antigen level results should be the cumulative response and final answer a lab would report based on serological or molecular results or a combination of any methods, using appropriate UNOS equivalents ([www.unos.org](http://www.unos.org)).

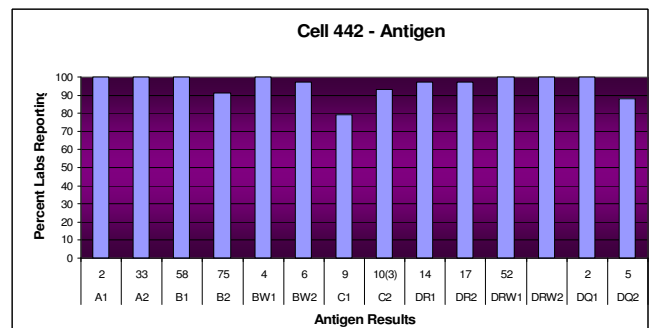
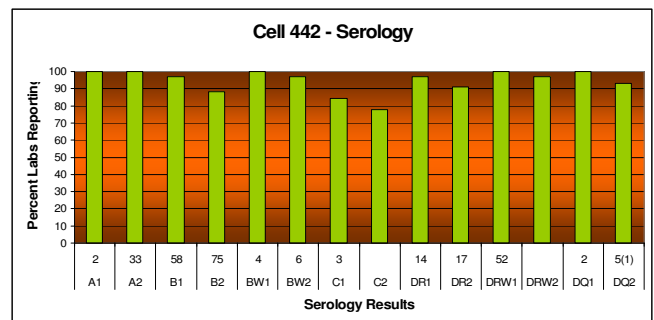
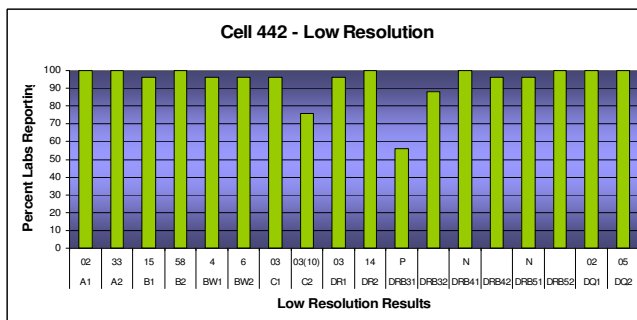
AFDT will **grade** any methods entered in to the data fields. If a lab does not want any particular data field be graded, **NT** must be entered into that field, in order to be excluded. Labs must contact their accrediting agencies, (ASHI, CAP, UNOS, NMDP) etc to determine what loci and alleles need to be submitted for grading. AFDT is currently working on a major revision to the data entry, analysis and grading rules.

Labs are strongly encouraged to submit high resolution results as well. Only allele level high resolution results can be submitted. (For example B3501 is an acceptable result but B3501/07/23 is not). Any submitted results entered in a field, will be graded. Please be careful to submit only properly formatted results, since they will be graded. Consensus antigens and alleles are bolded. Alleles reported by the majority of the labs are designated with a ( ).

Faxed results are no longer acceptable and electronic data entry is required. Please contact AFDT if there are any problems with data submissions. All communication will be done electronically so please carefully watch for any announcements from AFDT regarding changes and sendout information from AFDT Proficiency Testing Committee. Paper copies of reports will no longer be sent to labs, either.

The report below is a complete summary of the July 9, 2007 results. Note that each cell is presented separately and the methods displayed in charts and graphs that will describe the antigens and alleles that were reported. Each lab can compare their results with those of other labs that participated in this exchange.

### CELL 442 – Asian

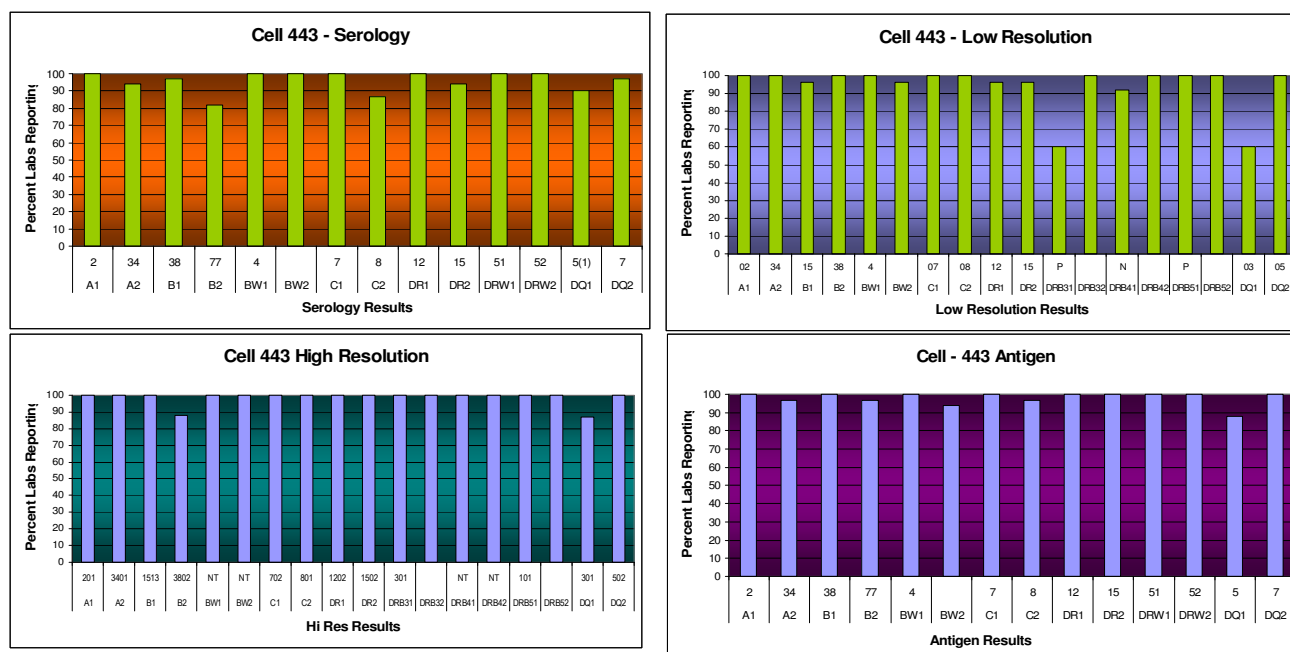


CELL 442 (Asian) Antigen Level: **HLA: A2, A33; B58, B75, (Bw4,Bw6); Cw9, Cw10; DR14, DR17; DR52; DQ2, DQ5**

CELL 442 (Asian) High Resolution: **HLA: A\*0201, A\*3303; B\*1511, B\*5801, Cw\*0302, Cw\*0303; DRB1\*0301, DRB1\*1405; DRB3\*0101 ; DQB1\*0201, DQB1\*0503**

Cell 442 is from an Asian donor. All alleles, with the exception of Cw09 by serology (78%) met consensus in this cell by serology, low resolution, antigen level and high resolution methods. This serologically challenging cell had Cw9 and Cw10 - both splits of Cw3. This is difficult to split using serological reagents alone. The majority of the labs did detect 2 separate Cw3 alleles.

## Cell 443 – Asian

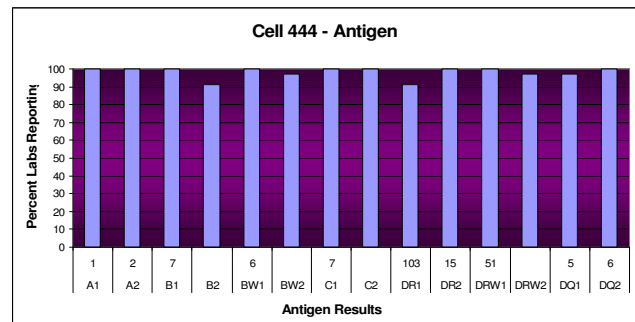
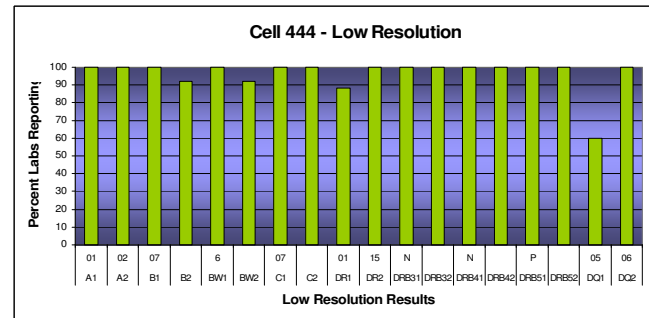
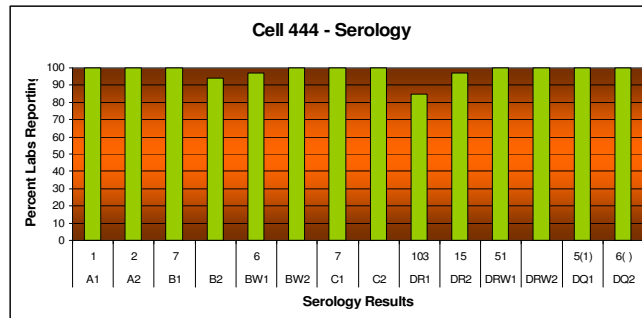


CELL 443 (Asian) Antigen Level: **HLA: A2, A34; B38, B77, (Bw4); Cw7, Cw8; DR12, DR15; DR51, DR52; DQ5, DQ7**

CELL 443 High Resolution: **HLA: A\*0201, A\*3401; B\*1513, B\*3802; Cw\*0702, Cw\*0801; DRB1\*1202, DRB1\*1502; DRB3\*0301, DRB5\*0101; DQB1\*0301, DQB1\*0502**

This unusual cell is from an Asian donor, also reached consensus for Class 1 and Class 2 antigens, by all methods for all alleles.

## Cell 444 – Caucasian

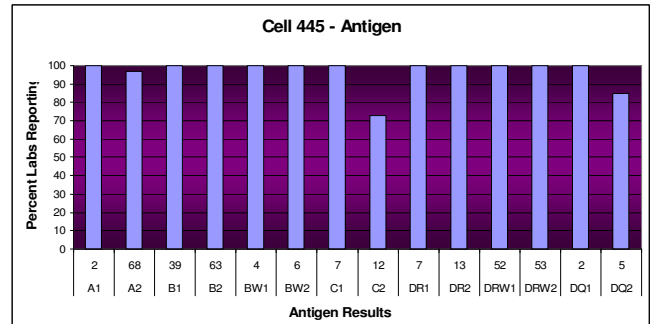
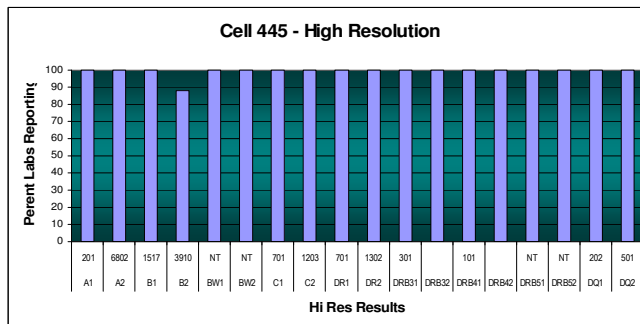
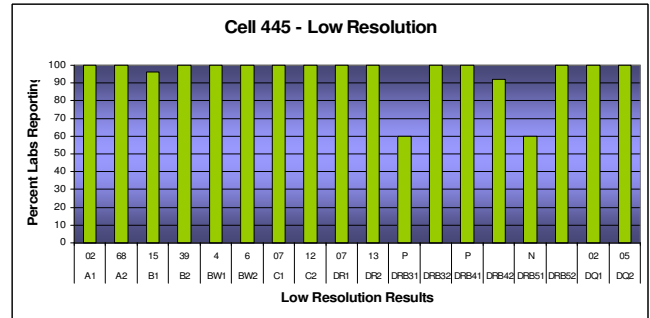
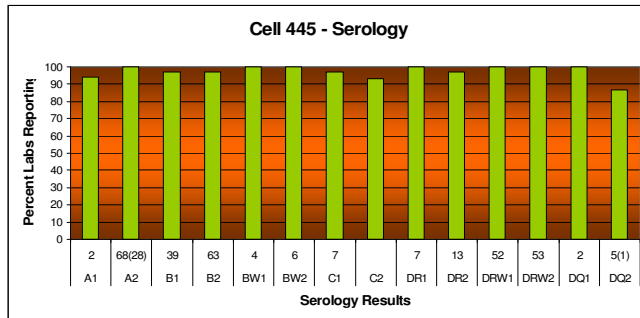


CELL 444 (Caucasian) Antigen Level: **HLA: A1, A2; B7, B- (Bw6); Cw7, Cw- ; DR103, DR15; DR51 ; DQ5, DQ6**

CELL 444 (Caucasian) High Resolution: **HLA: A\*0101, A\*0201; B\*0702; Cw\*-; DRB1\*0103, DRB1\*1501; DRB5\*0101 ;DQB1\*0501, DQB1\*0602**

This cell, also from a Caucasian donor, reached consensus, both for Class 1 and Class 2 antigens, at the serology, low-resolution, high resolution and antigen level for all loci. The cell appears to be a B7 and Cw7 homozygous. These are quite common alleles. Family studies would have to be done in order to determine homozygosity. All serology labs reported DQ1, and its associated splits of DQ5 and DQ6, both present on Cell 444. DQ splits are very difficult to assign using serological methods alone, but labs were able to reach consensus for both splits.

## Cell 445- Hispanic

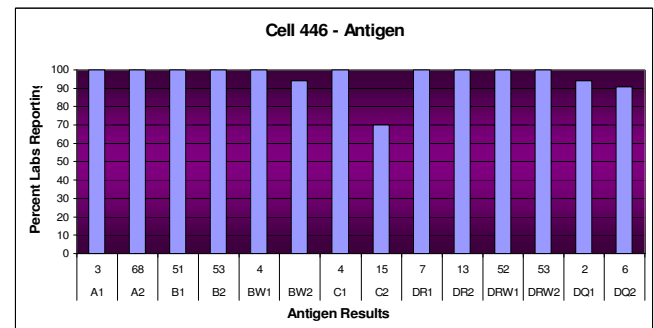
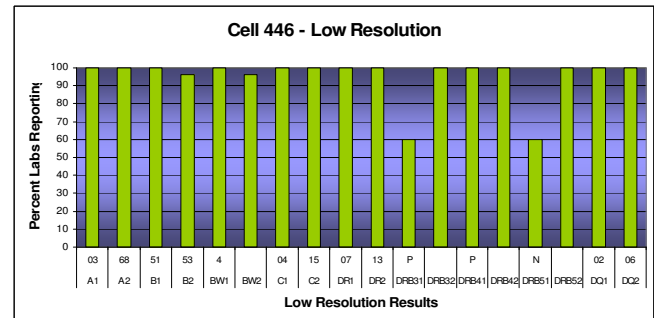
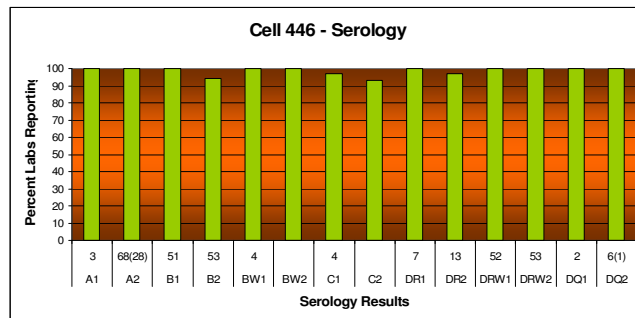


CELL 445 (Hispanic) Antigen Level: **HLA: A2, A68; B39, B63 ;Bw4 ,Bw6; Cw7, Cw12; DR7, DR13; DR52, DR53; DQ2, DQ5**

CELL 445 ( Hispanic) High Resolution: **HLA: A\*0201, A\*6802; B\*1517, B\*3910; Cw\*0701, Cw\*1203; DRB1\*0701, DRB1\*1302; DRB3\*0301, DRB4\*0101; DQB1\*0202, DQB1\*0501**

This cell is from a Hispanic donor presented some little challenges to any labs, especially those using only serological methods. There are no Cw12 serological reagents available, so molecular techniques are required to detect those alleles.

## Cell 446 - Hispanic



CELL 446 (Hispanic) Antigen Level: **HLA: A3, A68; B51, B53; Bw4; Cw4, Cw15; DR13, DR17; DR52, DQ2, DQ6 (1)**

Cell 446 is also from a Hispanic donor. All alleles, except Cw15, for which there are no serological reagents, reached consensus.

**Conclusions:** As seen in past exchanges, most laboratories continue to employ a combination of serological and molecular techniques to assign serological, antigen level and low and high resolution results. We need more of the participating labs to submit the high resolution level results in future exchanges. AFDT Proficiency Testing sub-committee is strongly encouraging labs that perform high resolution typing to report their results. This will make it much easier for the committee to evaluate the types reported.

The AFDT welcomes any suggestions and comments about improving the Proficiency Testing Program that we currently offer. The AFDT PT program is the oldest of its kind, and is looking forward to many more years of productive service to the transplant community. We are anxious to provide a PT program that is beneficial to you individual situations and your input is always welcomed.

The next AFDT challenges will be Cell Typing. The sendout date will be November 5, 2007.