

AFDT

Proficiency Testing Program Report

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AFDT Proficiency Testing Results – March 5, 2007

SUMMARY REPORT Cell Sendout:

The March 2007 AFDT (American Foundation for Donation and Transplantation) (former SEOPF) Proficiency Testing challenges were graciously sent out by Dr. Sandra Helman's lab at the Medical College of Georgia in Augusta, Georgia. 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 for 2006. For a detailed set of instructions and current policies, please refer to the AFDT/SEOPF web site (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 will be **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).

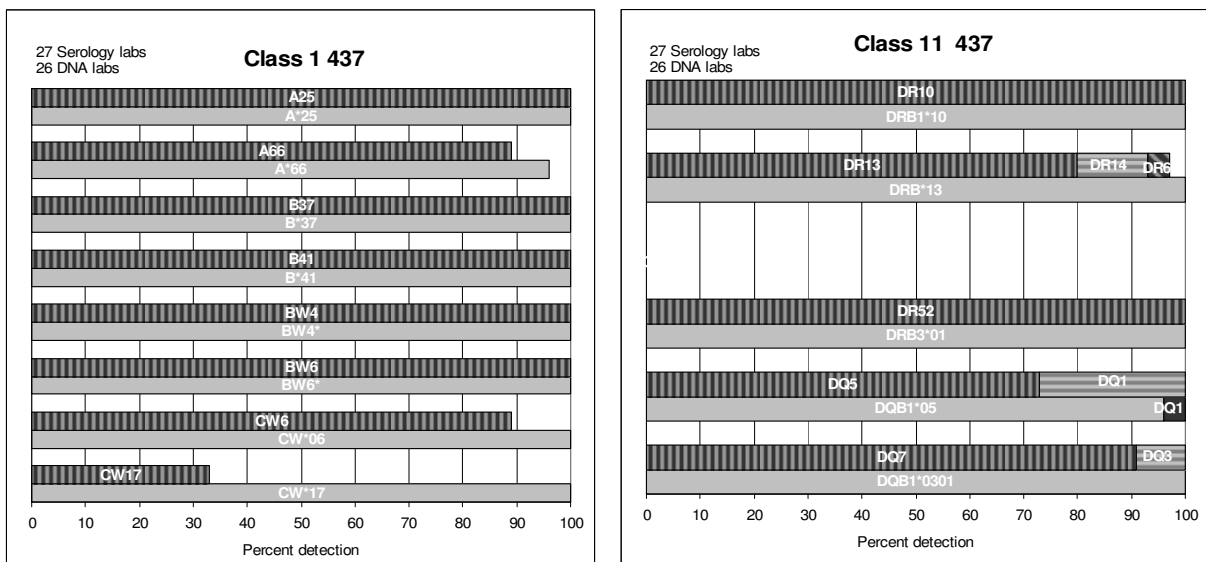
AFDT will **grade** any methods entered in to the data fields. If a lab does not want any particular data field to be graded, **NT** must be entered into that field, in order to be excluded. Labs must contact their accrediting agencies, (ASHI, CAP, UNOS, NMDP) etc to determine what loci and alleles need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

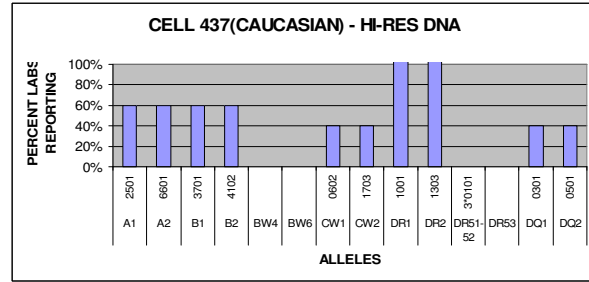
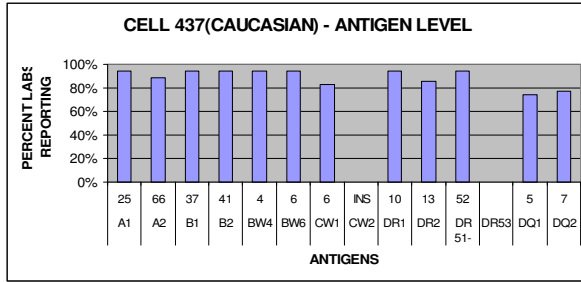
Labs are strongly encouraged to submit high resolution results as well. Only allele level high resolution results can be submitted. (For example B3501 is an acceptable result but B3501/07/23 is not). Any submitted results entered in a field, will be graded. Please be careful to submit only properly formatted 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 March 5, 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 437 – Caucasian



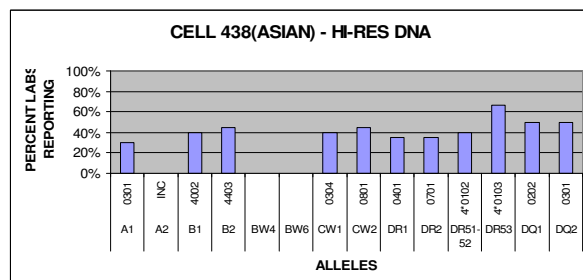
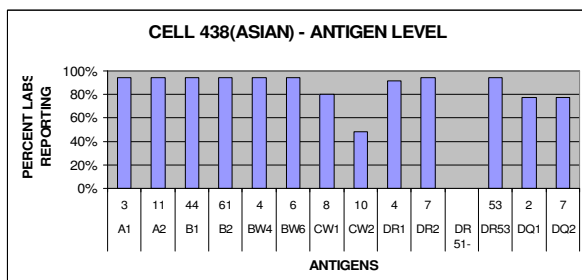
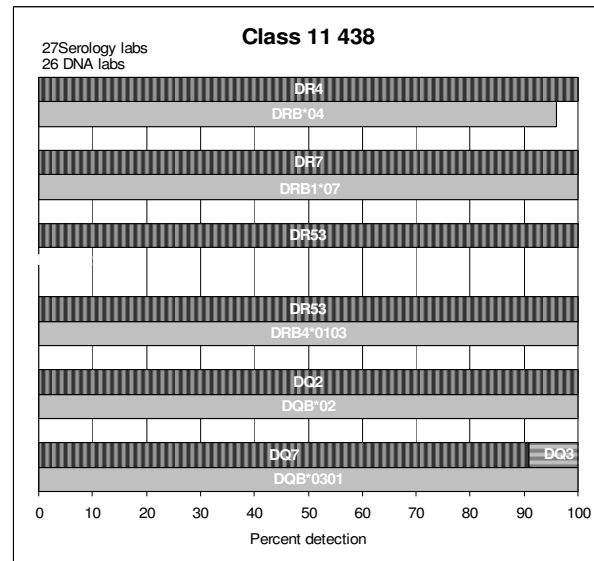
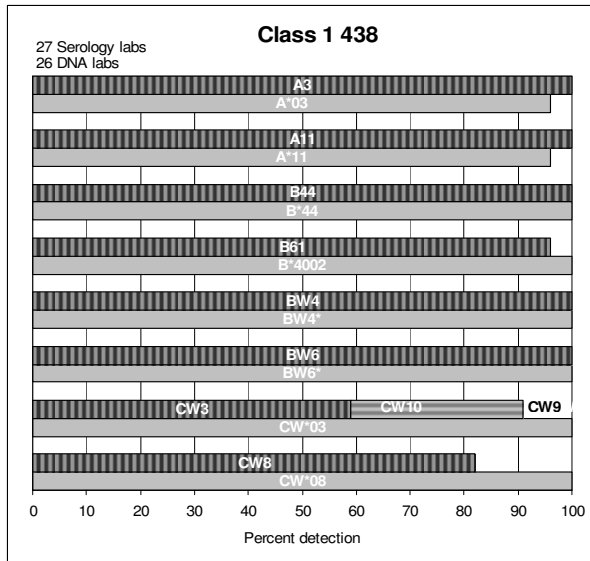


CELL 437 (Caucasian) Antigen Level: **HLA: A25, A6601; B37, B41, (Bw4,Bw6); Cw6, Cw17; DR10, DR13; DR52; DQ5, DQ7**

CELL 437 (Caucasian) High Resolution: **HLA: A*2501, A*6601; B*3701, B*4102, Cw*0602, Cw*1703; DRB1*1001, DRB1*1303; DRB3*0101 ; DQB1*0301, DQB1*0501**

Cell 437 is from a Caucasian donor. All alleles, (with the exception of Cw17 by serology) met consensus in this cell by serology, low resolution, antigen level and high resolution methods.

Cell 438 - Chinese

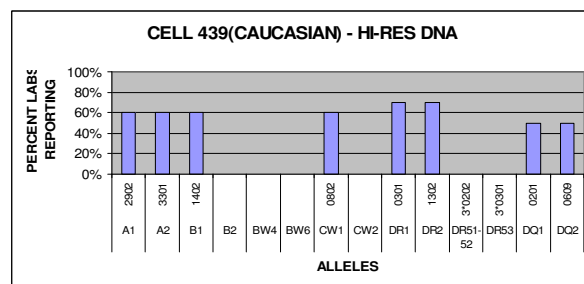
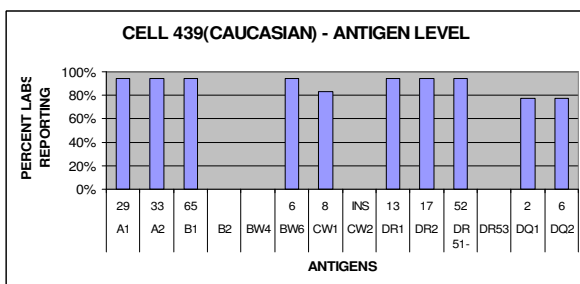
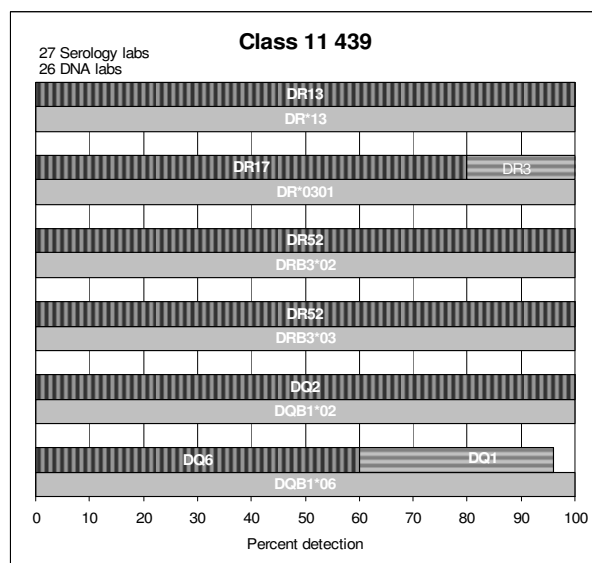
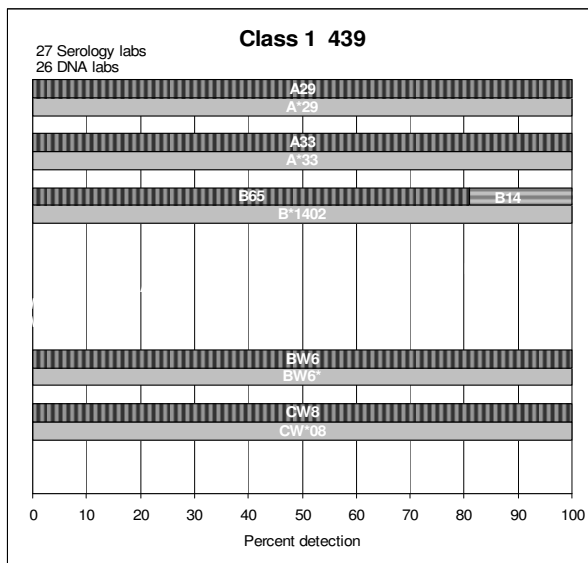


CELL 438 (Chinese) Antigen Level: **HLA: A3, A11; B44, B61, (Bw4, Bw6); Cw8, Cw10; DR4, DR7; DR53; DQ2, DQ7**

CELL 438 High Resolution: **HLA: A*0301, A*1101; B*4002, B*4403; Cw*0304, Cw*0801; DRB1*0401, DRB1*0701; DRB4*0102, DRB4*0103; DQB1*0202, DQB1*0301**

This cell is from a Chinese donor, also reached consensus for Class 1 and Class 2 antigens, by all methods for all alleles, except for A11 by high resolution methods. The majority of the labs assigned A*1101, but it did not reach consensus. Two distinct DRB4 alleles were also reported by the majority of the labs.

Cell 439 – Caucasian

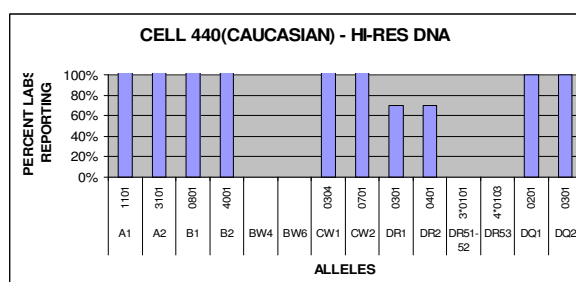
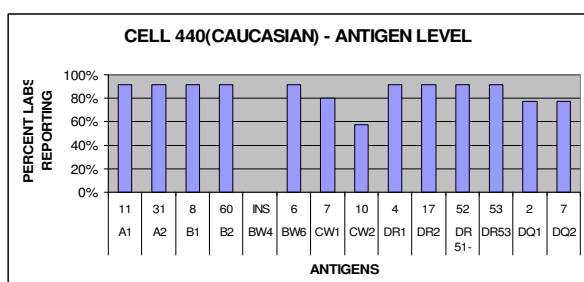
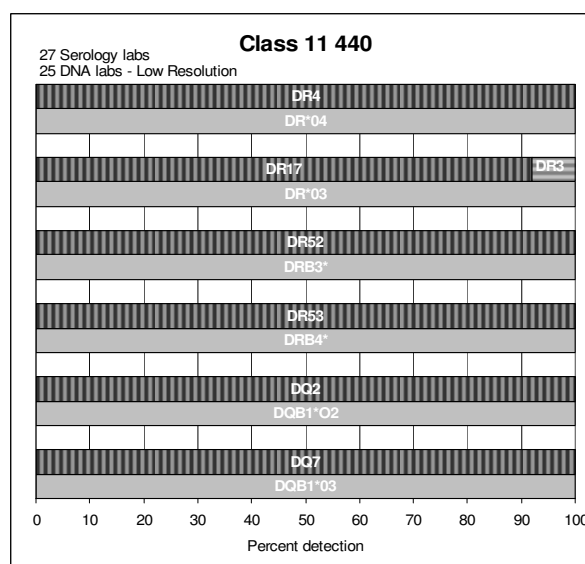
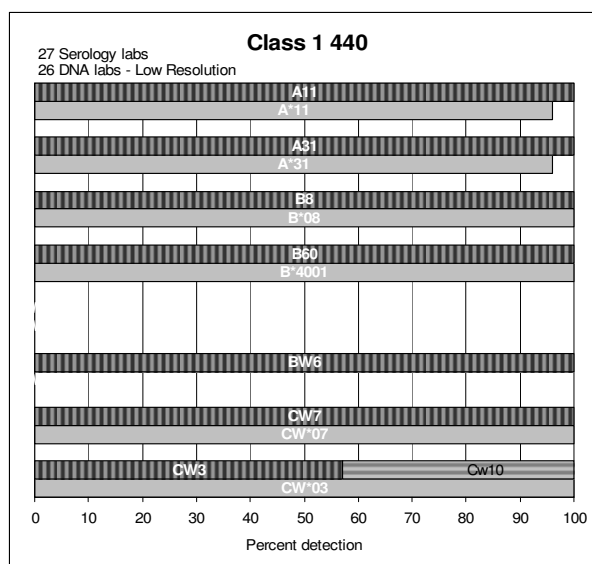


CELL 439 (Caucasian) Antigen Level: **HLA: A29, A33; B65, B- (Bw6); Cw8, Cw- ; DR13, DR17; DR52 ; DQ2, DQ6**

CELL 439 High Resolution: **HLA: A*2902, A*3301; B*1402; Cw*0802; DRB1*0301, DRB1*1302; DRB3*0202, DRB3*0301; DQB1*0201, DQB1*0609**

This interesting and challenging 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. B65 is usually difficult to assign using serology alone, but 81% of the labs did assign this split, and the remainder reported B14. This cell is most probably homozygous for B65 and Cw8. Family studies would have to be done in order to determine homozygosity. All serology labs reported DQ1, and 60% reported DQ6 as the split. DQ splits are very difficult to assign using serological methods alone.

Cell 440- Caucasian



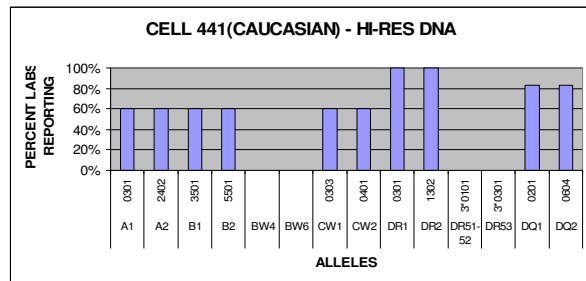
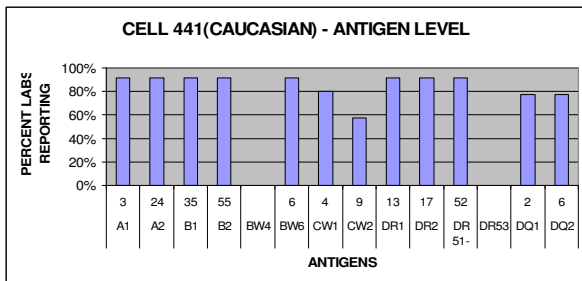
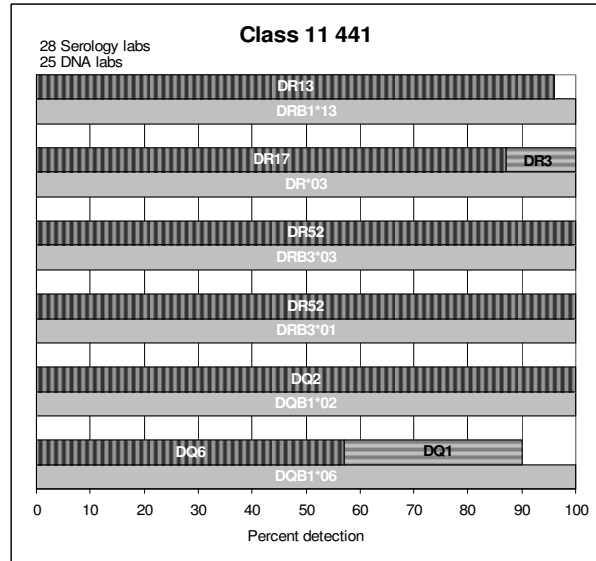
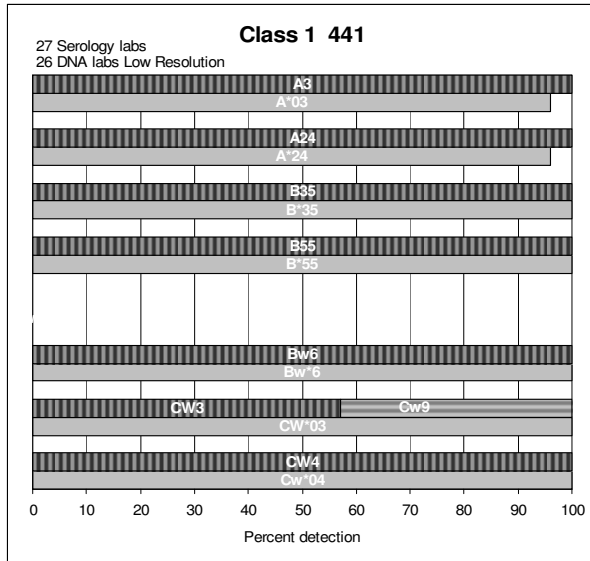
CELL 440 (Caucasian) Antigen Level: **HLA: A11, A31; B8, B60, (Bw6); Cw7, Cw10; DR4, DR17; DR52, DR53; DQ2, DQ7**

CELL 440 High Resolution: **HLA: A*1101, A*3101; B*0801, B*4001; Cw*0304, Cw*0701; DRB1*0301, DRB1*0401; DRB3*0101, DRB4*0103; DQB1*0201, DQB1*0301**

This cell is from another Caucasian donor and presented very little challenge to any labs, even those using only serological methods. These relatively common alleles were

not problems for any labs, as all methods reached consensus for all alleles and antigens.

Cell 441 - Caucasian



CELL 441(Caucasian) Antigen Level: **HLA: A3, A24; B35, B55 (Bw6); Cw4, Cw9 ;DR13, DR17; DR52, DQ2, DQ6 (1)**

Cell 441 High Resolution: **HLA: A*0301, A*2402; B*3501,B*5501; Cw*0303, Cw*0401; DRB1*0301, DRB1*1302; DRB3*0101; DRB3*0301; DQB1*0201, DQB1*0604**

Cell 441 is also from a Caucasian donor. All alleles reached consensus on this very common cell type. Again, serological reagents are difficult to use for DQ6 by serological methods, but 57% reported this split.

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 Crossmatch and PRA portions. The sendout date will be May 14, 2007. The Ochsner Clinic Foundation will provide cells and serum for this exchange.