

AFDT

Proficiency Testing Program Report

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AFDT Proficiency Testing Results – March 6, 2006

SUMMARY REPORT Cell Sendout:

The March 2006 Cell sendout are the first challenges sent out this year under the new AFDT (American Foundation for Donation and Transplantation) name. Please make note these changes and notify all appropriate individuals at your respective institutions, accrediting agencies, and states etc, of this name change. The mission and goals of the proficiency testing programs will remain unchanged, even though the name changes in 2006.

AFDT Proficiency Testing will continue to send 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. For a detailed set of instructions and current policies, please refer to the AFDT/SEOPF web site (www.seopf.org).

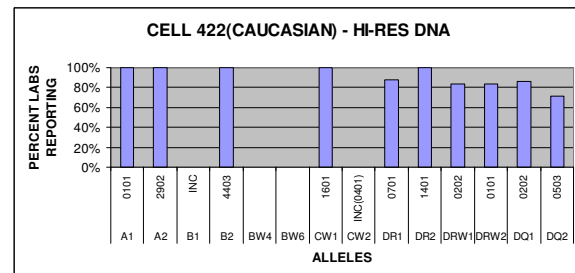
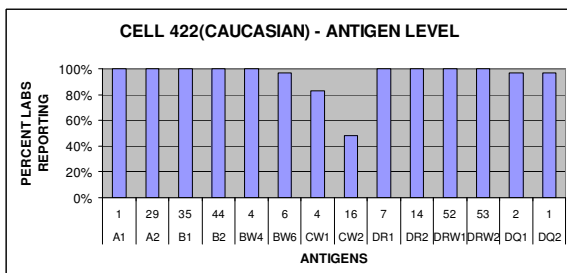
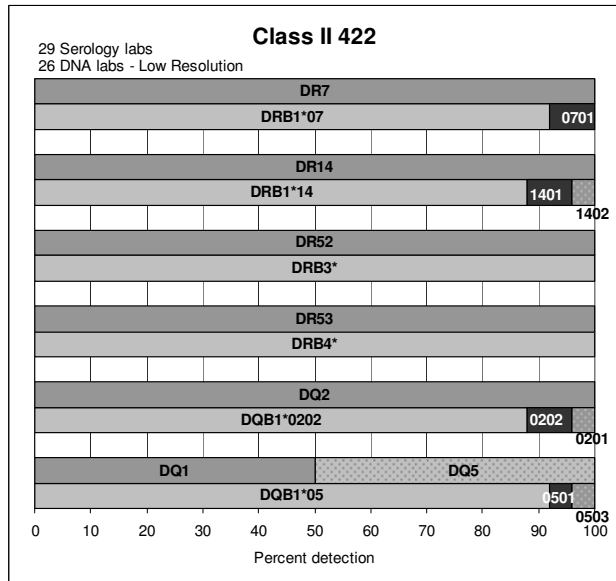
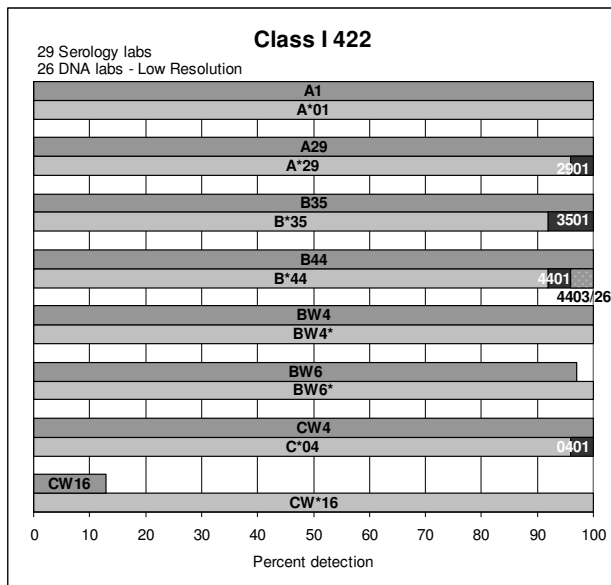
Ochsner Clinic Foundation Histocompatibility and Immunogenetics Laboratory, New Orleans, LA was the sending laboratory for this first exchange. There have been some recent modifications in the grading criteria for 2006. Results are now graded and the definition of consensus has changed this year from 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).

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 correct results, since they will be graded. The report below is a summary of the March 6, 2006 results. Consensus antigens and alleles are bolded. Alleles reported by the majority of the labs are designated with a ().

In the following report, each cell will be 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 422 – Caucasian

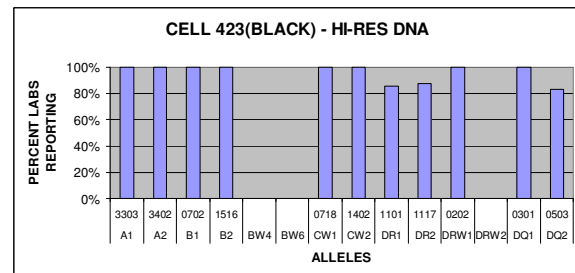
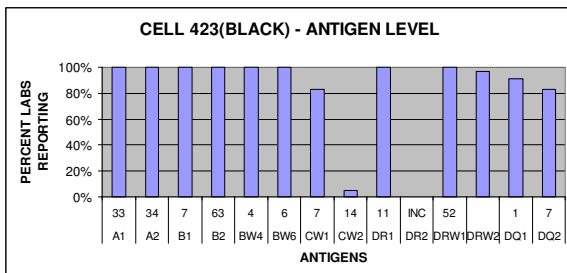
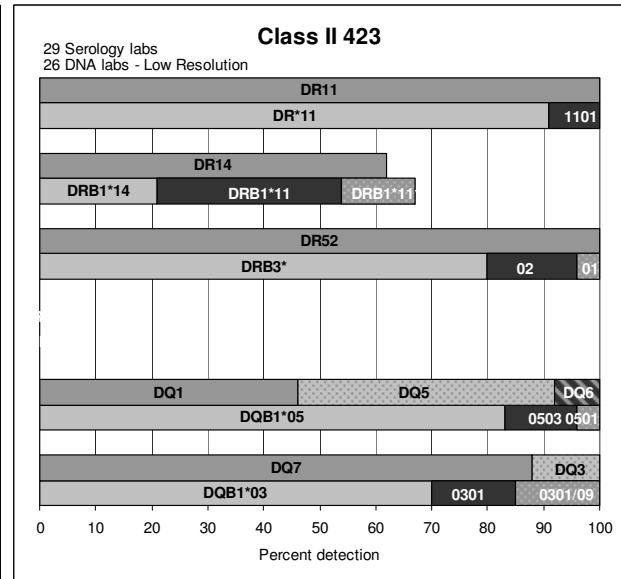
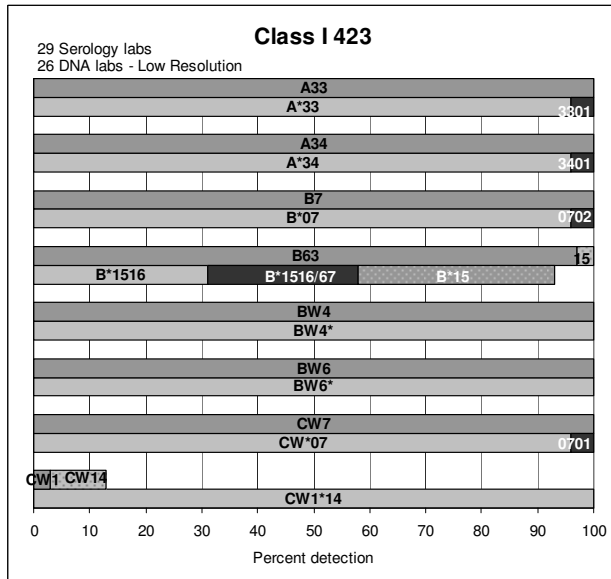


CELL 422 (Caucasian) Antigen Level: **HLA: A1, A29; B35 B44, (Bw4, Bw6); Cw4, Cw16; DR7, DR14; DR52, DR53, DQ2, DQ5**

CELL 422 High Resolution: **HLA: A*0101, A*2902; (B*35), B*4403; (Cw*0401), Cw*1601; DRB1*0701, DRB1*1401; DRB3*0202, DRB5*0101, DQB1*0202, (DQB1*0503).**

Cell 422 is from a Caucasian donor. High Resolution results did not meet consensus as consistently as did the Antigen Level results reported. DRB1*3501 was reported by 3 labs (67%) and DRB1*3524 by 1 lab (33%), and therefore did not reach consensus. Low resolution results would favor B3501. Additionally only 1 lab reported high resolution for Cw*0401, so there insufficient numbers of responses to grade. Cw16, not usually identified by serological reagents, was reported by 13% of the serology labs. Molecular methods were in total agreement with Cw16. Class 2 typing results were consistent. 71% of the labs also reported DQB1*0503, so this is the most probable allele.

Cell 423 - Black

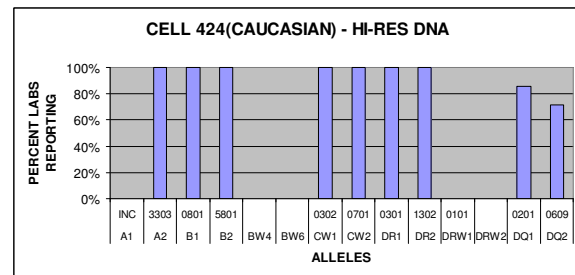
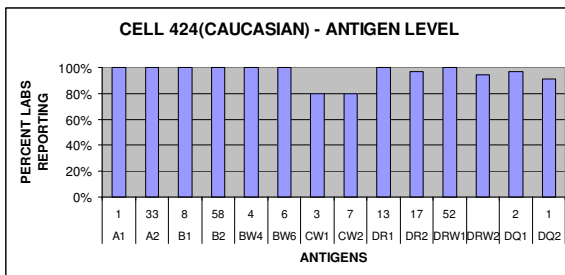
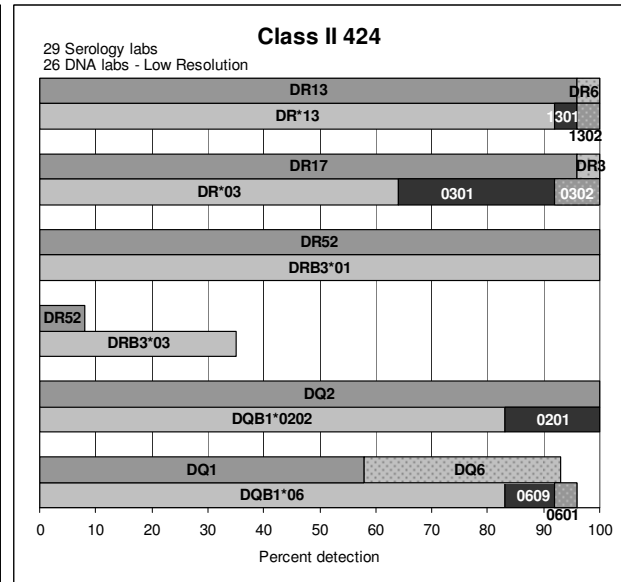
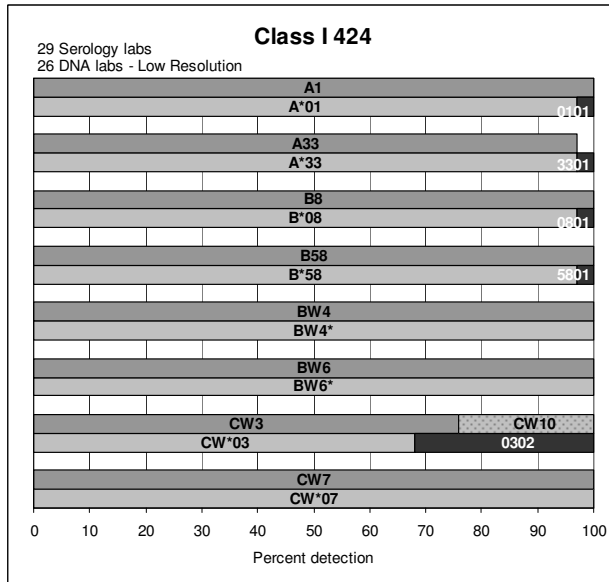


CELL 423 (Black) Antigen Level: **HLA: A33, A34; B7 B63, (Bw4, Bw6); Cw7, (Cw14); DR11, (DR14); DR52; DQ1 (5), DQ7**

CELL 422 High Resolution: **HLA: A*3303, A*3402; B*0702, B*1516; Cw*0718, Cw*1402; DRB1*1101, DRB1*1117; DRB3*0202; DQB1*0301, DQB1*0503**

This interesting cell from a Black donor was a challenge to labs performing either serological and/or molecular typing methods. By serology the cell types as a DR11 and DR14. Molecular typing reveals DR1101 and DR1117. DR1117 serological equivalent is DR14, so the appropriate equivalent is DR14. The correct antigen level response is DR11 and DR14. The majority of the labs reported this type correctly. Low resolution Class 2 results were less consistent. DR14 was reported by 20% of the labs. The correct allele should have been DR1117, rather than DR14. The cell may also have 2 different DR52 antigens/alleles as indicated by low resolution results.

Cell 424 – Caucasian

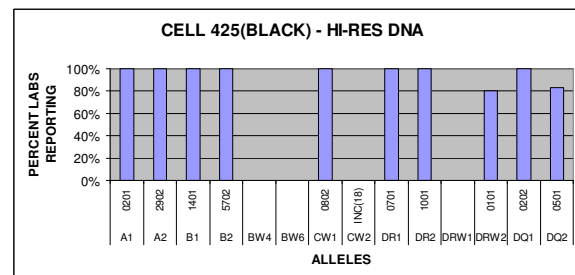
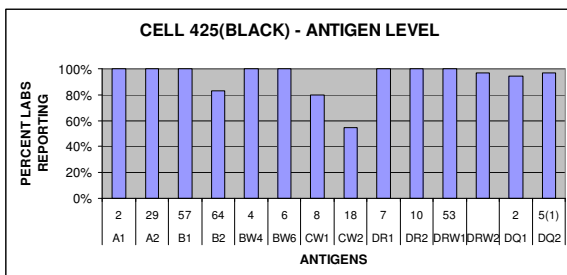
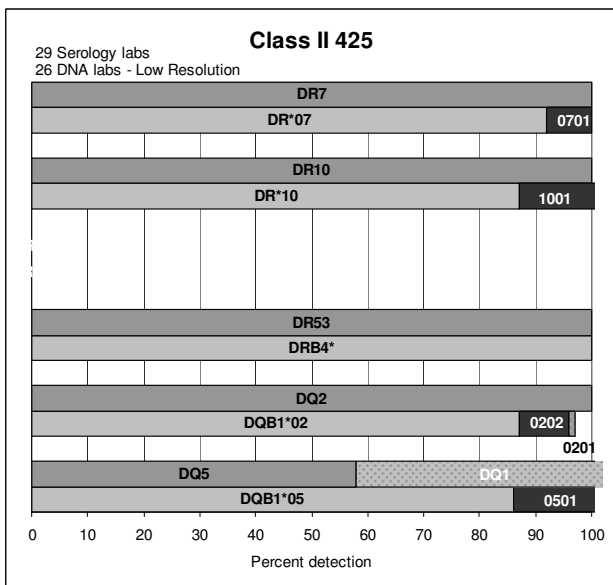
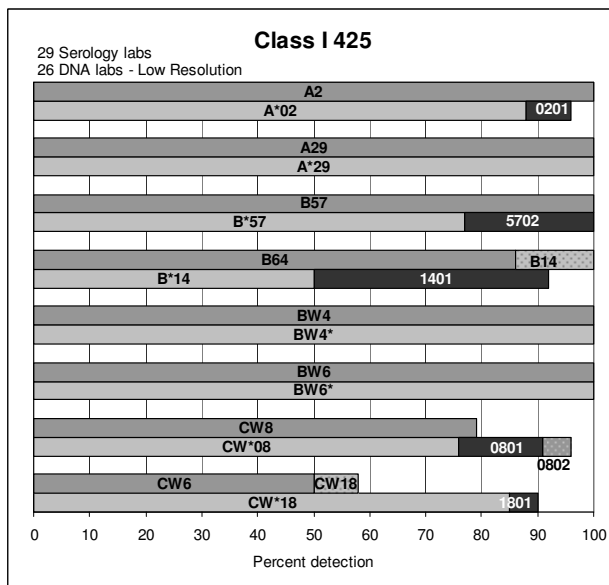


CELL 424 (Caucasian) Antigen Level: **HLA: A1, A33; B8 B58, (Bw4, Bw6); Cw3 (10), Cw7; DR13, DR17; DR52; DQ2, DQ1 (6)**

CELL 424 High Resolution: **HLA: A*0101, A*3303; B*0801, B*5801; Cw*0302, Cw*0701; DRB1*0301, DRB1*1302; DRB3*0101/03; DQB1*0201, DQB1*0609**

This cell, from a Caucasian donor, reached consensus at the antigen level for all reported loci. High resolution types were not well defined for A1. Three labs (67%) reported A*0101 and one lab reported A*0103/08, but consensus was not met. Much the same thing happened with DRB3* alleles assigned by several labs. Class 2 results were more consistent and agreed with the serological assignments. Again this cell like the previous cell has 2 different DR52 antigens. The majority of the labs indicated that this was a DRB3*0101/03.

Cell 425 - Black

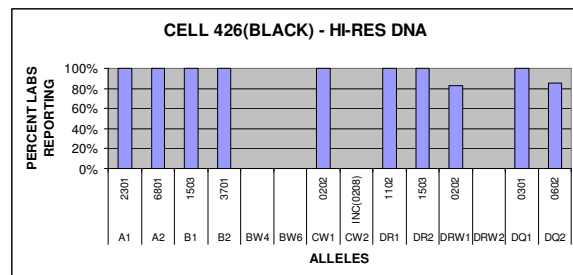
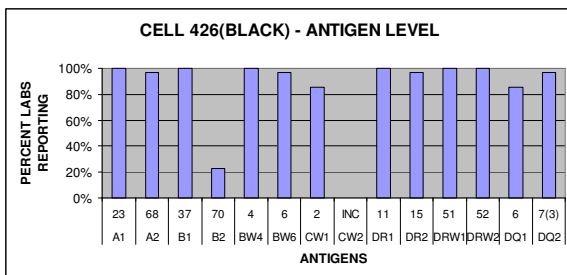
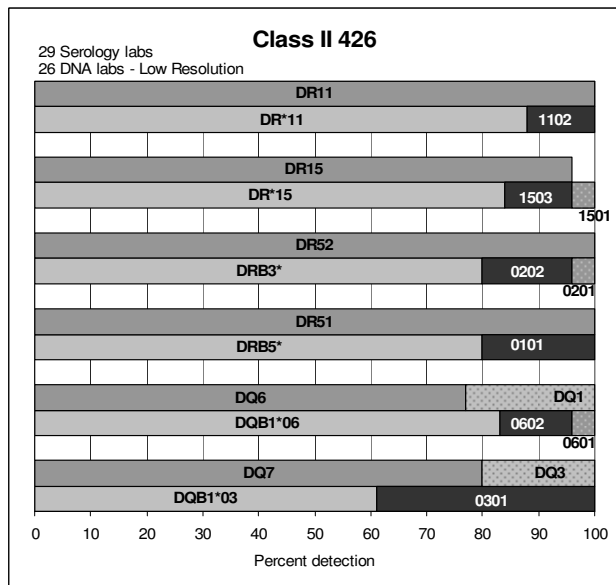
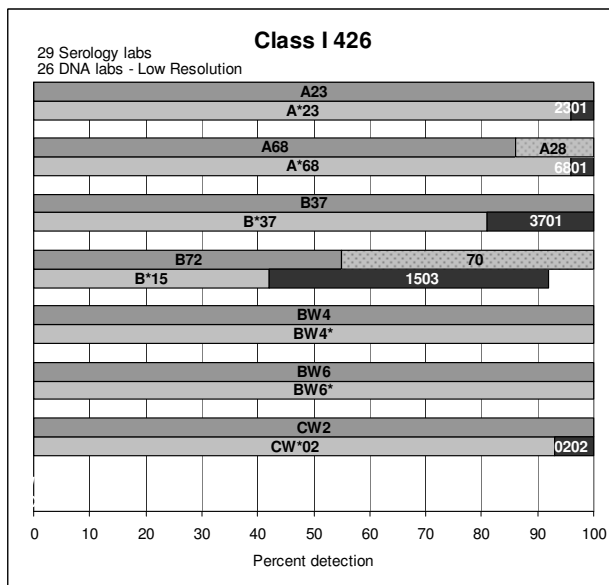


CELL 425 (Black) Antigen Level: **HLA: A2, A29; B57, B64, (Bw4, Bw6); Cw8, (Cw18); DR7, DR10; DR53; DQ5 (1), DQ2**

CELL 425 High Resolution: **HLA: A*0201, A*2902; B*1401, B*5702; Cw*0802, (Cw*1801/02); DRB1*0701, DRB1*1001; DRB4*0101; DQB1*0202, DQB1*0501**

This cell is from a black donor and Antigen level assignments all met consensus, with the exception of Cw18, which cannot be typed using serological methods only. The majority of the labs did assign Cw18 by molecular methods but only 2 labs reported high resolution alleles for the Cw locus. One lab reported Cw*1801 and the other Cw*1802, so there were an insufficient number of responses to resolve this allele assignment. Half of the serology labs reported Cw6 for this cell, and 8% reported Cw18. Cw6 sera may detect Cw18 since this C locus is most probably Cw18, evidenced by the fact that 90% of the labs reported Cw18 by low resolution methods.

Cell 426 - Black



CELL 426 (Black) Antigen Level: **HLA: A23, A68; B37, B70 (72), (Bw4, Bw6); Cw2; DR11, DR15; DR51, DR52; DQ6, DQ7 (3)**

CELL 426 High Resolution: **HLA: A*2301, A*6801; B*1503, B*3701; Cw*0202; DRB1*1102, DRB1*1503; DRB3*0202; DRB5*0101; DQB1*0301, DQB1*0602**

Cell 426 is also from a Black donor. All alleles reached consensus on this interesting cell. Serological results support the B72 split of B70, as did the assignment of B*1503 by low resolution results seen. Cw2 reached consensus, but one lab reported Cw*0208 in addition to Cw*0202. There were not enough labs reporting another C locus allele to make any assignments other than Cw2. Class 2 results all reached consensus, with DRB1*1503 being the most likely allele.

Conclusions: As seen in past exchanges, most laboratories continue to employ a combination of serological and molecular techniques to assign serological, antigen level and high resolution results. We need more of the participating labs to submit this level of results in the future. 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 Cell PT sendout will be July 10, 2006.