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AFDT Proficiency Testing Results – November, 2013

Summary Report – Cell Sendout:

This AFDT Proficiency Test Cell Sendout (AFDT-PTCS) consists of 5 anti-coagulated whole blood samples which, as closely as possible, represent actual patient samples as they are received by HLA laboratories 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. These AFDT-PTCS samples meet all mandates and guidelines for proficiency testing.

Grading:

AFDT grades HLA DNA typing at 2 levels : 1) Antigen level 2) High resolution. Since we are now also grading Serology results, enter Antigen results ONLY if you do DNA typing and it should be a “translation” of the DNA type to the antigens that would be entered in UNET. (Please see the AFDT-PTCS master instructions for details.) In addition, low resolution HLA typing results may also be entered into the PT software. The 2 digit low resolution results are not graded (the Antigen level result translated from DNA typing is graded), but group results are shared for informational/educational purposes. Results obtained by serology (CDC) method are graded separately and should not be entered in the Antigen results.

AFDT-PTCS consists of 4 graded analytes:

- 1) HLA-Class I antigen level typing – This level of resolution must meet the requirements for HLA typing results entered in UNET. (ie. Low resolution typing *B*15* must be converted to the appropriate antigen as would be entered for a patient in UNET – *B62, B63, B71, etc.*)
- 2) HLA-Class I high resolution typing – This level of resolution will be graded for the first 4 digits only (ie. *A*01:01:01* will be entered and graded as *A*01:01*).

If there are any ambiguities which cannot be resolved, the most common and likely allele is reported (ie. *A*03:01/03:31* will be entered and accepted as *A*03:01*. The rare *A*03:31* allele can be reported in the comment section for that entry.) In the event an ambiguity includes multiple possible common alleles, the lab should make every effort to resolve the ambiguity.

- 3) HLA-Class II antigen level typing (see additional comments in #1)
- 4) HLA-Class II high resolution typing (see additional comments in #2)

The graded results of these analytes of the AFDT-PTCS reflect the guidelines and standards as set out by CLIA, UNOS, ASHI, and CAP standards, and may be submitted to those same accrediting agencies as fulfilling the requirements for yearly proficiency testing in all areas of HLA testing offered by the AFDT-PT program.

See the master AFDT-PT instructions for further details.

Results:

The following are summary tables of the consensus results of each cell of the November, 2013 Proficiency Test. Consensus results are given for antigen level typing, high resolution, serology, and low resolution. Antigen level (by DNA), High resolution DNA typing and Serology (CDC) typing results are graded.

HLA Typing Summary Report

Consensus Results - November 2013

Cell **537**

Locus	Antigen	% Cons	Hi Res	% Cons	Lo Res	% Cons	Serology	% Cons
A	2	100	02:01	100	02	100	2	100
A	68	100	68:01	100	68	100	68/28	100
B	18	100	18:01	100	18	100	18	100
B	44	100	44:02	100	44	100	44	100
Bw4	P	100	n/a	0	P	100	P	100
Bw6	P	100	n/a	0	P	100	P	100
C	5	100	05:01	100	05	100	5	100
C	BL	94	BL	100	BL	94	BL	100
DR	17	100	03:01	100	03	100	13	100
DR	13	100	13:01	100	13	100	17/3	100
DRw	52	100	DRB3=01:01	100	DRB3=P	100	52	100
			DRB4=ND	100	DRB4=N	100		
			DRB5=ND	100	DRB5=N	100		
DRw	BL	59	DRB3=02:02	100			BL	100
			DRB4=BL	100				
			DRB5=BL	100				
DQ	2	100	02:01	100	02	100	2	100
DQ	6	100	06:03	100	06	100	6/1	100
#Labs	17		8		16		9	

Comments:

Overall good consensus.

Consensus Results - November 2013

Cell 538

Locus	Antigen	% Cons	Hi Res	% Cons	Lo Res	% Cons	Serology	% Cons
A	11	100	11:01	100	11	100	11	100
A	BL	88	BL	100	BL	88	BL	100
B	7	100	07:02	100	07	100	7	100
B	8	100	08:01	100	08	100	8	100
Bw4	N	100	n/a	0	N	100	N	100
Bw6	P	100	n/a	0	P	100	P	100
C	7	100	07:01	100	07	100	7	100
C	7	59	07:02	100	BL	56	BL	100
DR	17	100	03:01	100	03	100	15	100
DR	15	100	15:01	100	15	100	17/3	100
DRw	52	100	DRB3=01:01	100	DRB3=P	100	51	100
			DRB4=ND	100	DRB4=N	100		
			DRB5=01:01	100	DRB5=P	100		
DRw	51	100	DRB3=BL	100			52	100
			DRB4=BL	100				
			DRB5=BL	100				
DQ	2	100	02:01	100	02	100	2	100
DQ	6	100	06:02	100	06	100	6/1	100
#Labs	17		8		16		9	

Comments:

Overall good consensus.

Consensus Results - November 2013

Cell 539

Locus	Antigen	% Cons	Hi Res	% Cons	Lo Res	% Cons	Serology	% Cons
A	2	100	02:01	100	02	100	2	100
A	29	100	29:02	100	29	100	29	100
B	13	100	13:02	100	13	100	13	100
B	45	100	45:01	100	45	100	45	100
Bw4	P	100	n/a	0	P	100	P	100
Bw6	P	100	n/a	0	P	100	P	100
C	6	100	06:02	100	06	100	6	100
C	BL	88	BL	100	BL	87	BL	100
DR	11	100	11:01	100	11	100	11	100
DR	13	100	13:02	100	13	100	13	100
DRw	52	100	DRB3=02:02	100	DRB3=P	100	52	100
			DRB4=ND	100	DRB4=N	100		
			DRB5=ND	100	DRB5=N	100		
DRw	BL	53	DRB3=03:01	100			BL	100
			DRB4=BL	100				
			DRB5=BL	100				
DQ	7	100	03:01	100	03	100	6/1	100
DQ	6	100	06:04	100	06	100	7	100
#Labs	17		8		16		9	

Comments:

Overall good consensus.

Consensus Results - November 2013

Cell 540

Locus	Antigen	% Cons	Hi Res	% Cons	Lo Res	% Cons	Serology	% Cons
A	1	100	01:01	100	01	100	1	100
A	26	100	26:01	100	26	100	26	78
B	7	100	07:02	100	07	100	7	100
B	8	100	08:01	100	08	100	8	100
Bw4	N	100	n/a	0	N	100	N	100
Bw6	P	100	n/a	0	P	100	P	100
C	7	100	07:01	87	07	100	7	100
C	BL	59	07:02	100	BL	62	BL	100
DR	17	100	03:01	100	03	97	15	100
DR	15	100	15:01	100	15	100	17	89
DRw	52	100	DRB3=01:01	100	DRB3=P	100	51	100
			DRB4=ND	100	DRB4=N	100		
			DRB5=01:01	100	DRB5=P	100		
DRw	51	100	DRB3=BL	100			52	100
			DRB4=BL	100				
			DRB5=BL	100				
DQ	2	100	02:01	100	02	100	2	100
DQ	6	100	06:02	100	06	100	6/1	100
#Labs	17		8		16		9	

Comments:

There was diminished consensus using high resolution in detecting C*07:01 in the presence of C*07:02. Using serology, HLA-A26 detection did not reach consensus. This may be due to lack of reliable commercially available reagents.

Consensus Results - November 2013

Cell 541

Locus	Antigen	% Cons	Hi Res	% Cons	Lo Res	% Cons	Serology	% Cons
A	2	100	02:01	100	02	100	2	100
A	11	100	11:01	100	11	100	11	100
B	7	100	07:02	100	07	100	7	100
B	35	100	35:01	100	35	100	35	100
Bw4	N	100	n/a	0	N	100	N	100
Bw6	P	100	n/a	0	P	100	P	100
C	4	100	04:01	100	04	100	4	100
C	7	100	07:02	100	07	100	7	100
DR	7	100	07:01	100	07	100	7	100
DR	15	100	15:01	100	15	100	15	100
DRw	51	100	DRB3=ND	100	DRB3=N	100	51	100
			DRB4=01:03	75	DRB4=NL	62		
			DRB5=01:01	100	DRB5=P	100		
DRw	NL	71	DRB3=NT	0			53	66
			DRB4=NT	0				
			DRB5=NT	0				
DQ	9	100	03:03	100	03	100	6/1	100
DQ	6	100	06:02	100	06	100	9/3	100
#Labs	17		8		16		9	

Comments:

Excellent consensus overall, however, there was lack of consensus in calling the DRB4 null allele across all methods. Detection of the null allele is required for all UNET listed patients and deceased donors. Please check your reagents and testing protocols if you were not able to detect this one.

Additional reporting of HLA-DQA and DPA and DPB results for these cells were also received. Though there are not enough labs reporting these loci for us to grade at this time, the labs that perform them are given coded results of all labs to determine consensus for accreditation purposes. Should the number of labs reporting HLA-DQA, DPA, and/or DPB reach 10, we can officially offer graded results for these loci.

Special thanks to Marilyn Langan for maintaining the AFDT database and providing excellent technical support to the AFDT Proficiency Testing Program.

The AFDT Specialist Course will be held in Washington, DC from June 20-26, 2014. Information and registration for the course can be obtained on our website – www.amfdt.org. This course is ABHI approved for Technologists and Director level participants.

Consensus Results - November 2013

Cell [542](#)