

AFDT

Proficiency Testing Program Report

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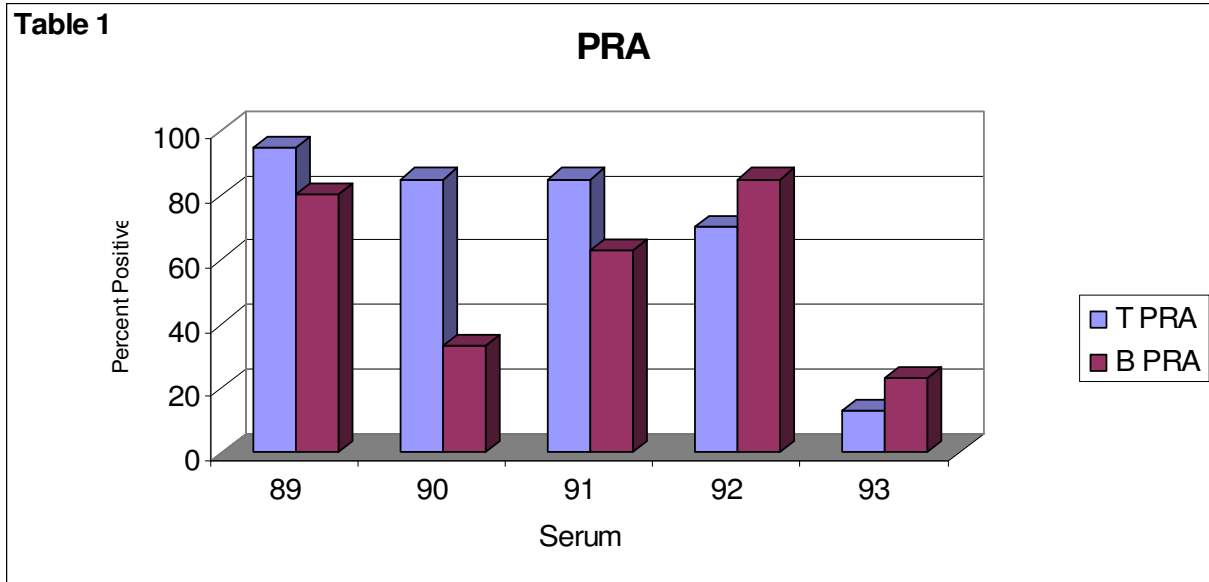
AFDT Proficiency Testing Results – May 14, 2007

SUMMARY REPORT:

The May 14, 2007 Crossmatch / PRA exchange is the first crossmatch send-out for 2007. The mission and goals of AFDT Proficiency Testing is to provide cells and sera that approximate, as closely as possible, those clinical samples that are tested on a routine basis in most labs. This more accurately predicts how a lab functions clinically on a day-to-day basis. We feel that these AFDT Proficiency Testing Samples are more relevant and indicative of actual clinical situations and therefore more appropriate to meet the intent of CLIA, UNOS, CAP and ASHI guidelines and standards. The May 2007 send-out included five sera with very complicated specificities. Some of these specificities were undetectable by standard CDC serological testing methods, and therefore significantly more difficult to detect by using serology alone. The results reported by most labs using techniques other than the standard CDC indicate that these sera do indeed contain Class I and Class 2 antibodies. Consensus has been changed from 85% to 80% this year. At the request of participants, for the second time Luminex results have been separated and analyzed separately from flow results. As we have seen in the previous surveys, the results from this survey were most interesting and informative.

Unfortunately there were some minimal sample losses to some of the sera that occurred in transit. Under normal circumstances, additional sera would be sent out to replace what was damaged in transit. However, the sending lab did not have any extra sera to send. If your lab was disadvantaged by this, (and there does not appear to be any that actually failed because of this), AFDT would strongly suggest you contact your respective accrediting agencies if there is some errors. The next send out will be tightly capped. Labs can routinely order double samples, so contact Arlene Skinner at AFDT if this is something that you would like to have done routinely. There is a small surcharge for this service.

A summary of PRA'S can be seen in Table 1.



Crossmatching was performed and analyzed by the cell type and the various methods and techniques reported. (See Tables 2 and 3).

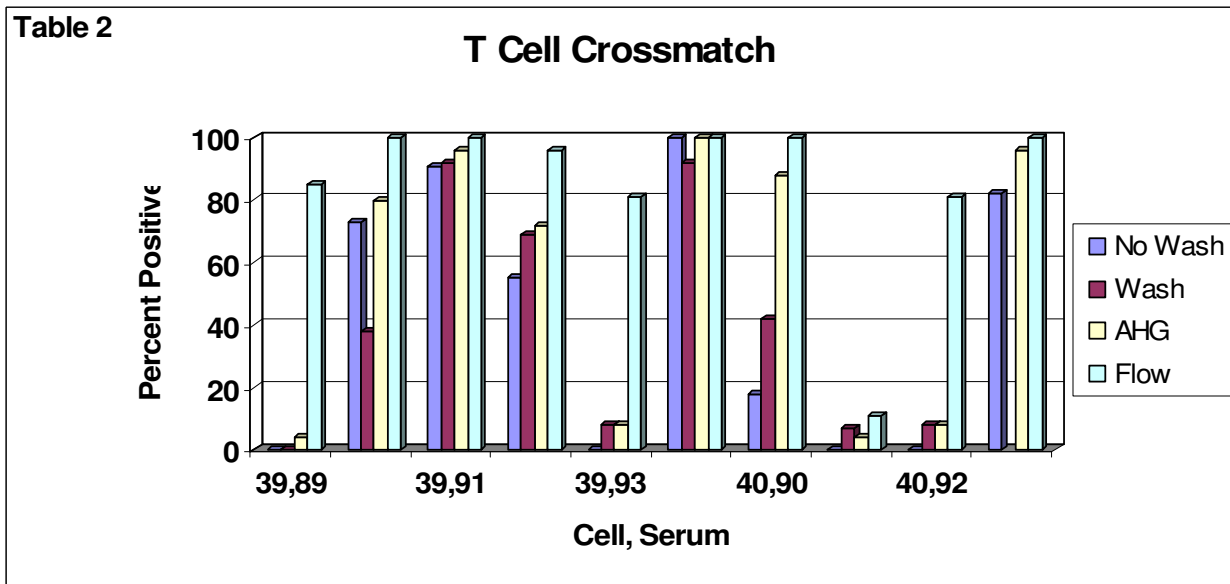
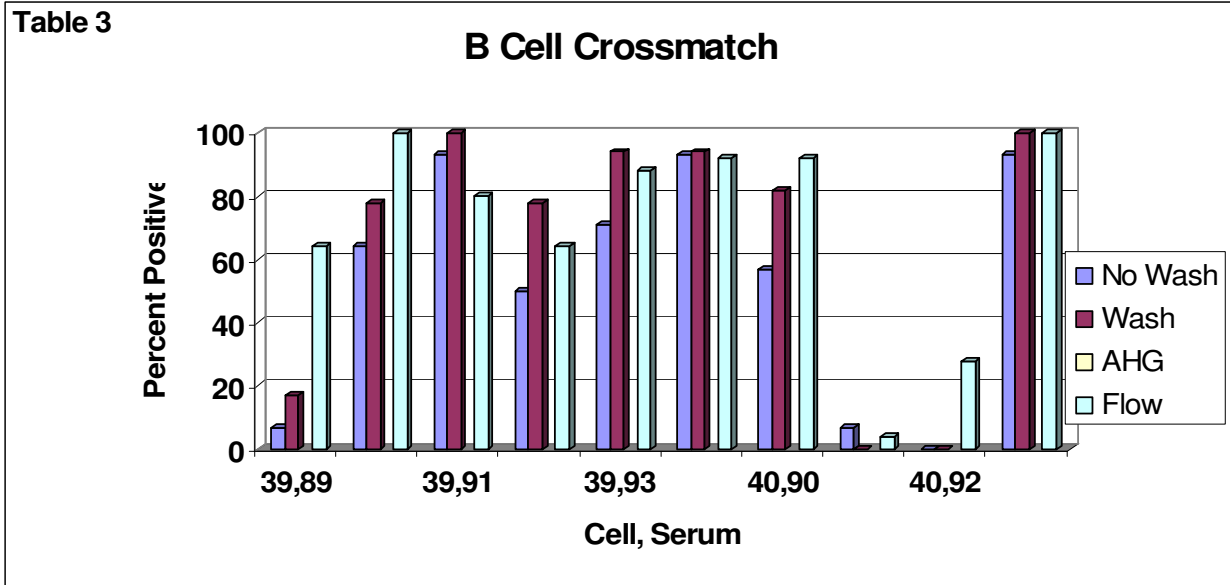
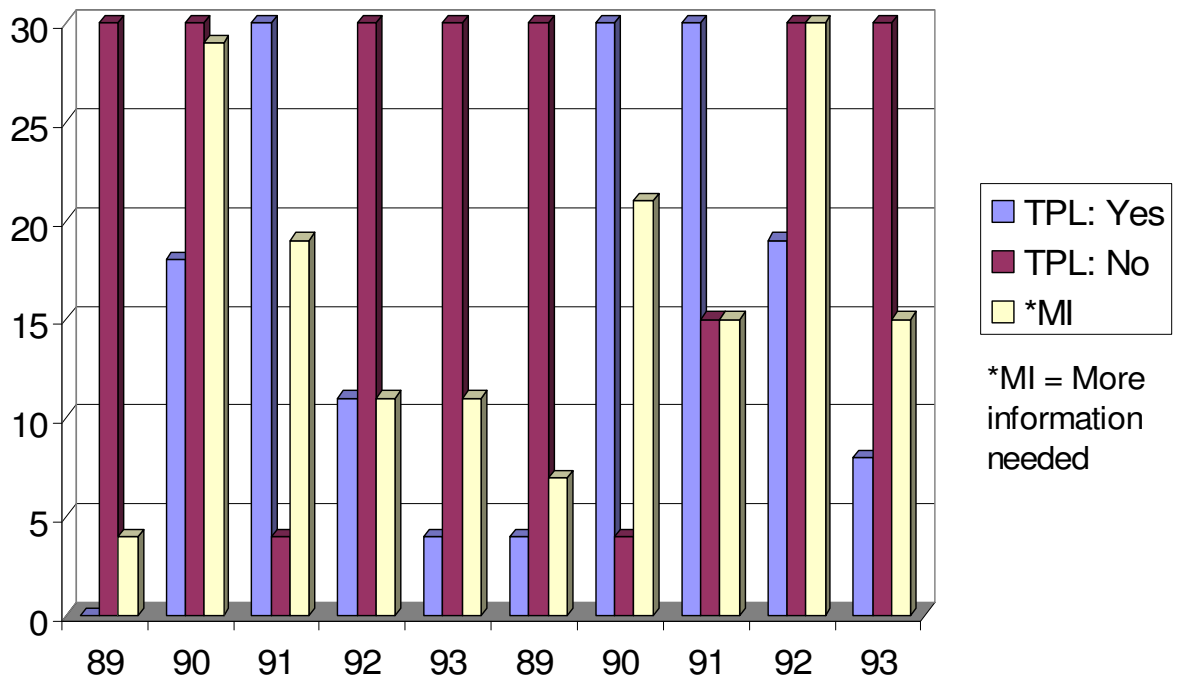


Table 3



As a final question, each lab was also asked to indicate, either whether a particular crossmatch pair would be transplanted or not at their respective centers, or if more information is needed. The results are summarized after each analysis in table 4. (Several laboratory directors commented that this question should always be answered “more information needed”, and is no longer pertinent since many centers now use desensitization and rescue protocols.)

Table 4

Transplant: Yes/No**May 2007 Crossmatch/PRA****Cells: Race: Phenotype:**

**CC39: Hisp: HLA: A*34, *68; B*08, *44; Bw4, Bw6; Cw*05, *07
DRB1*13, *17; DRB*3; DQB1*02, *06**

**CC40: Black: HLA: A*30, *8001; B*07, - ; Bw6; Cw*07, *15
DRB1*13, *15; DRB*3, *5; DQB1*06, *06**

Sera / Reported Specificities:

Bolded specificities without () indicates 80% or more labs reported this result, therefore consensus was reached. Specificities with () indicate that the majority (50% or more labs) reported this result. Luminex results are written in *italics*

and **bolded text** indicates 80% or more labs reported these results and 50% of the labs reported those in *italics and parentheses*.

CS89 - Anti - Class 1: **A2, A28, B17**, (A9), (B7), (B15), (B17), (B18), (B27), (B35), (B40), (B41), (B48)
 Class 2: **DR1, DR3, DR5, DR6, DR7, DR52, DQ1, DQ3**, (DR2), (DR4), (DR9), (DR11), (DR12), (DR13), (DR17), (DR103), (DR51), (DQ5), (DQ6), (DQ7)

CS90 - Anti - Class 1: **CW5, CW8**, (CW3)
 Class 2: Inconclusive

CS91 - Anti - Class 1: **A1, A36**, (A9)
 Class 2: Inconclusive

CS92 - Anti - Class 1: **A19, A29**, (A2), (A3), (A11), (A32), (A43), (A74)
 Class 2: **DR5, DR7, DR9, DR11, DR12, DR53**, (DR6), (DR10), (DR14)

CS93 - Anti - Class 1: (B15), (B35), (B75)
 Class 2: **DR8, DR52**, (DR1), (DR3), (DR5), (DR6), (DR10), (DR11), (DR12), (DR13), (DR14), (DR17), (DR18), (DR103)

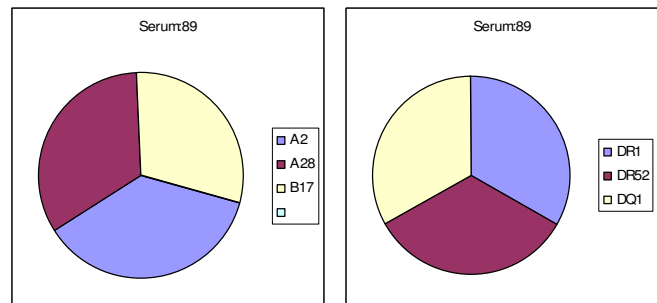
RESULTS: SERUM CS89

Antibody Analysis

CS89

Class 1: **A2, A28, B17**, (A9), (B7), (B15), (B17), (B18), (B27), (B35), (B40), (B41), (B48)

Class 2: **DR1, DR3, DR5, DR6, DR7, DR52, DQ1, DQ3**, (DR2), (DR4), (DR9), (DR11), (DR12), (DR13), (DR17), (DR103), (DR51), (DQ5), (DQ6), (DQ7)



PRA Results

CS89 is a highly reactive serum containing both Class 1 and Class 2 antibodies. 95% of the labs reported Class 1 reactivity. The range for T-cell/ Class 1 PRA was 7 -100%. The table below has the complete breakdown by methods. As expected solid phase assays (Flow, Luminex and ELISA) gave the most sensitive results. Interestingly, only solid phase assays were able to detect B locus specificities. The labs using Wash-T only detected A2 and not A28.

At the request of several participants, Flow and Luminex results are separated in this exchange.

Methods CS89	No Labs	Consensus	% PRA Range	Median PRA	Specificity
No-wash T	2	Positive	14-62	38	A2, A28
Wash-T	4	Positive	7-42	25	A2
AHG-T	13	Positive	0 -97	49	A2, A28
Flow Class I	26	Positive	57-100	79	A2, A28, B17, <i>(A9),(B7),(B15),(B17),(B18),(B27),(B35),(B40),(B41),(B48)</i>
ELISA Class 1	13	Positive	65 - 100	83	A2, A28, B17 <i>(A9),(B7),(B17),(B18),(B27),(B40),(B41),(B48)</i>
Luminex 1	17	Positive	NR	NR	A2, A28, B17, <i>(A9),(B7),(B15),(B17),(B18),(B27),(B35),(B40),(B41),(B48)</i>

Eighty percent (80%) of the labs reported Class 2 reactivity. CS89 B-cell / Class 2 screening PRA values ranged from 37 to 100% with consensus positive being reached by all methods. Serological methods had no specificities identified, but labs employing solid phase assays were able to define DR and DQ antibodies. Labs reporting DR3, DR5 and DR6 had difficulty assigning that because of antibodies to DR52 as well in this serum. Labs using single antigen beads were able to identify DR52 in the presence of DR3, DR5, and DR6. The complete breakdown is as follows:

Methods CS89	No Labs	Consensus	% PRA Range	Median PRA	Specificity
No-wash B	2	Positive	56-56	56	Undetermined
Wash-B	8	Positive	37-92	65	Undetermined
AHG-B	0	NT			NT
Flow Class 2	26	Positive	38-100	69	DR1, DR3, DR5, DR6, DR7, DR52, DQ1,DQ3, <i>(DR2),(DR4),(DR9),(DR11),(DR12),(DR13),(DR17),(DR103),(DR51),(DQ5),(DQ6),(DQ7)</i>

ELISA Class 2	11	Positive	97-100	99	DR52, DQ1,DQ3, (DR2),(DR4),(DR9),(DR11),(DR12),(DR13),(DR17),(DR103),(DR51),(DQ5),(DQ6),(DQ7)
Luminex 2	12	Positive	0	0	DR1, DR3, DR5, DR6, DR7, DR52, DQ1,DQ3, (DR2),(DR4),(DR9),(DR11),(DR12),(DR13),(DR17),(DR103),(DR51),(DQ5),(DQ6),(DQ7)

Crossmatching Results: CS89 vs. CC39 This cell-serum combination should have produced positive crossmatches due to the strong A2 and A28, DR52 and DQ1 antibodies and the corresponding types found on Cell CC39. But in CS89 and CC39, 50% of the labs reported negative T-cell crossmatches, using *No-Wash* and *Wash* methods. Additionally, these same techniques did not detect A28 either. For labs using B-cells, all methods did reach Positive consensus for CS89/CC39. Two labs (2) noted that CS39 leaked during transit, and may not have had sufficient sera to complete their full battery of tests.

Note: The inconsistencies in the total number of labs for T-cell and B-cell results are because not all labs reported all methods each time. The actual number of lab responses is in the column "No Labs Total".

Crossmatch Consensus Results – CS89/CC39

Methods	No Labs Total	T-cell #	T-cell #	%T-cell	Result	B-cell #	B-cell #	%B-cell	Result
	T/B	Pos	Neg	Cons		Pos	Neg	Cons	
No-wash	9	5	4	56	Inconclusive	12	0	100	Positive
Wash	12	6	6	50	Inconclusive	16	0	100	Positive
AHG	22	18	4	82	Positive	NT			Not Tested
Flow	27	26	1	96	Positive	26	0	100	Positive
ELISA	NT				Insufficient	NT			Insufficient

Transplant? Yes: 0 No: 96 More information needed: 4

CS89 Vs. CC40

Crossmatch Consensus Results – CS89/CC40

Results submitted for CS89 and CC40 were similarly unpredictable and unusual for T-cells in the results submitted by labs. T-cell crossmatches only reached Positive consensus by Flow . The majority of the labs (61%) indicated positive using AHG serum. As seen in the previous cell-serum combination, all but one lab, reported Positive results by all methods.

Methods CS89	No Labs Total T/B	T-cell #	T-cell #	%T- cell	Result	B-cell #	B-cell #	%B- cell	Result
		Pos	Neg	Cons		Pos	Neg	Cons	
No-wash	10	4	6	40	Inconclusive	13	0	100	Positive
Wash	9	3	6	33	Inconclusive	14	1	93	Positive
AHG	23	14	9	61	Inconclusive				NT
Flow	28	27	1	96	Positive	27	0	100	Positive
ELISA	0				NT				NT

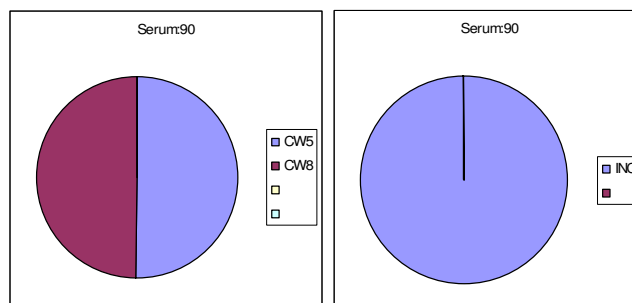
Transplant? Yes: 18 No: 54 More information needed: 29

SERUM CS90

Antibody Analysis:

Anti -Class 1: **CW5, CW8**, (CW3)

Class 2: Inconclusive



PRA Results

Almost all labs (85%) assigned a T-cell / Class1 PRA to CS90. The range was 0 - 51%. Cw5 and Cw8 did reach consensus. Labs using the Wash T method did not report any specificity but were able to detect the presence of a Class 1 antibody, but not determine any specificity. Some labs, specifically those using flow and Luminex, also reported Cw3 antibodies. The complete results are below:

Methods CS90	No Lab s	Consens us	% PRA Range	Medi an PRA	Specificity
No-wash T	4	Positive	0 -10	5	CW5, CW8
Wash-T	6	Negative	0 -5	3	Undetermined

AHG-T	16	Positive	0 - 22	11	CW5, CW8
Flow Class 1	28	Positive	1- 51	26	CW5, CW8
ELISA Class 1	13	Positive	1 -20	10	CW8
Luminex 1	12	Positive			CW5, CW8, (CW3)

A few labs (33%) reported Class 2 reactivity by flow and Luminex. The majority (55%) of the labs reported no antibodies, but no methods actually reached consensus. DR7 and DR9 were the specificities reported by a few labs. The B- cell/ Class 2 PRA's ranged from 1-100%. The PRA reached consensus positive by all methods. The complete results are below.

Methods CS90	No Labs	Consensus	% PRA Range	Median PRA	Specificity
No-wash B	2	Negative	0	0	Negative
Wash-B	8	Positive	0 - 8	15	Undetermined
AHG-B	0	NT			Undetermined
Flow Class 2	26	Positive	0-34	17	Undetermined
ELISA Class 2	11	Positive	0 -7	4	Undetermined
Luminex 2	12	Positive			Undetermined

Crossmatching Results: CS90 Vs. CC39

Crossmatch Consensus Results – CS90/CC39

Similar inconsistent patterns were observed in this combination. There appears to be C-locus Class 1 antibodies, detectable by enhanced and solid phase assays only. Cw5 and Cw8 met consensus, This explains the positive consensus reached by these crossmatch methods below. CC39 is a Cw5. Serological methods were clearly less sensitive and produced the inconclusive patterns below seen in T cell subsets below. Class 2 reaction patterns reported by all labs by all methods, were equally inconsistent.

Methods CC39/CS90	No Labs Total T/B	T-cell # Pos	T-cell # Neg	%T-cell Cons	Result	B-cell # Pos	B-cell # Neg	%B-cell Cons	Result
No-wash	10	0	10	100	Negative	1	12	88	Negative
Wash	11	2	9	82	Negative	6	9	40	Inconclusive
AHG	24	3	19	83	Negative	NT			NT

Flow	27	24	3	89	Positive	15	11	58	Positive
ELISA	0				Insufficient				Insufficient

Transplant: Yes:18 No: 54 More Information needed: 29

Crossmatch Consensus Results – CS90/CC40

Similar inconsistent patterns were observed in this combination (CS90/CC40), as in the previous combination (CS90/CC39). There appears to be no distinct Class 2 antibodies directed against this cell, but the majority of the labs (58%) reported positive B-Cell/Class 2 reactions as seen below. T and B cell subsets are below:

Methods CC40/CS 90	No Labs Total T/B	T-cell			Result	B-cell			Result
		# Pos	# Neg	%T- cell Con s		# Pos	# Neg	%B- cell Con s	
No-wash	13	0	13	100	Negative	1	12	92	Negative
Wash	11	2	9	82	Negative	6	9	40	Inconclusive
AHG	22	3	19	86	Negative	NT			NT
Flow	27	24	3	89	Positive	15	11	58	Inconclusive
ELISA	NT				Insufficient				Insufficient

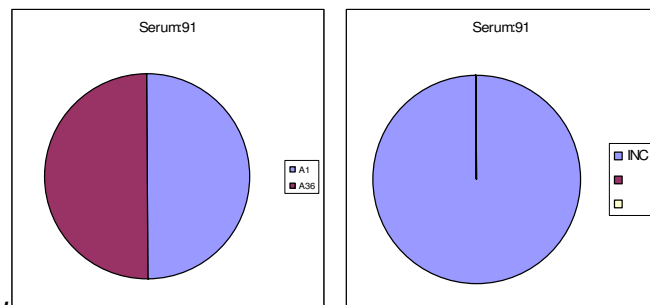
Transplant? Yes: 75 No: 4 More information needed: 21

SERUM CS91

Antibody Analysis:

Anti - Class 1 : Class 1: **A1, A36, (A9)**

Class 2: Undetermined (*Undetermined, None*)



PRA Results:

All of the labs were able to determine whether there was Class 1 reactivity or not with this. A1,A36 was detected by all methods and reached consensus by all methods reported. Luminex labs (64%) also reported reactivity to A9. This was in the majority although it did not reach consensus. The Class 1/ T-cell PRA range was 0 - 61%. Class 1 PRA did reach positive consensus by any methods. The results are seen below:

Methods CS91	No Labs	Consensus	% PRA Range	Median PRA	Specificity
No-wash T	4	Negative	15-22	19	A1, A36
Wash-T	6	Positive	0 - 28	14	A1, A36
AHG-T	16	Positive	0 - 24	12	A1, A36
Flow Class I	28	Positive	0 - 61	31	A1, A36
ELISA Class 1	13	Positive	3-20	12	A1, A36
Luminex 1	12	Positive			A1, A36 (A9)

The majority of the labs (63%) reported a B- cell/ Class 2 PRA, but not enough to reach consensus by any methods, including Luminex. The range was 0 - 52%. No specificities were reported and approximately 40% of the labs reported DR2 by Luminex only. The breakdown by methods is as follows:

Methods CS91	No Labs	Consensus	% PRA Range	Median PRA	Specificity
No-wash B	3	Inconclusive	22-22	22	Inconclusive
Wash-B	10	Inconclusive	0 - 41	21	Inconclusive
AHG-B	0	NT			
Flow Class 2	26	Inconclusive	0 - 48	24	Inconclusive
ELISA Class 2	11	Negative	0-18	9	None
Luminex 2	12	Negative			Inconclusive

Crossmatching Results: CS91 Vs. CC39**Crossmatch Consensus Results – CS91/CC39**

T-cell and B-cell crossmatches were quite concordant, by all methods based on the antibodies reported and the phenotype of CC39. All methods reached a negative consensus.

Method	No Labs Total	T-cell #	T-cell #	%T-cell	Result	B-cell #	B-cell #	%B-cell	Result
	T/B	Pos	Neg	Cons		Pos	Neg	Cons	
CS91/CC39									
No-wash	10	0	10	100	Negative	0	13	100	Negative
Wash	12	0	12	100	Negative	1	15	93	Negative
AHG	23	0	23	100	Negative	NT			Insufficient
Flow	28	12	27	93	Negative	3	24	89	Negative
ELISA	0				Insufficient				Insufficient

Transplant? Yes: 78 No: 4 More information needed: 19

CS91 Vs. CC40

Crossmatch Consensus Results – CS91/CC40

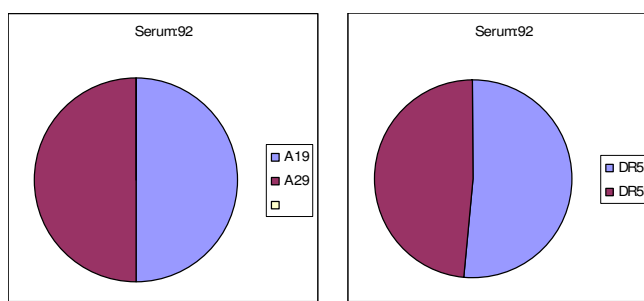
T-cell/ Class 1 and B-cell/ Class 2 crossmatches were again quite consistent consensus negative by most methods, except by Flow Class 2 which was 78% very close to 80% consensus. The complete results are below:

Method	No Labs Total	T-cell #	T-cell #	%T-cell	Result	B-cell #	B-cell #	%B-cell	Result
	T/B	Pos	Neg	Cons		Pos	Neg	Cons	
CS91/CC40									
No-wash	10	0	10	100	Negative	0	13	100	Negative
Wash	12	0	12	100	Negative	1	14	93	Negative
AHG	24	17	7	71	Negative	NT			NT
Flow	28	1	27	96	Negative	6	21	78	Inconclusive
ELISA	0				Insufficient				Insufficient

Transplant? Yes: 70 No: 15 More information needed: 15

SERUM CS92

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Antibody Analysis:

Anti - Class 1: **A19, A29**, (A2), (A3),
(A11), (A32), (A43), (A74)

Anti- Class 2: **DR5, DR7, DR9, DR11,**
DR12, DR53, (DR6),
(DR10), (DR14)

PRA Result:

T-cell/ Class 1 PRA's ranged from 0 - 95%. The majority of the labs (70%) reported Class 1 reactivity, but not enough labs reported PRA Class 1 antibodies to reach consensus. A-locus antibodies were reported by most methods, and some did reach consensus: A19 and A29. Additional A-locus antibodies were reported by Luminex. The labs reported the following results:

Methods CS87	No Labs	Consensus	% PRA Range	Median PRA	Specificity
No-wash T	4	Inconclusive	0-29	15	Inconclusive
Wash-T	6	Inconclusive	0 - 5	3	Inconclusive
AHG-T	16	Inconclusive	0-33	17	Inconclusive
Flow Class I	28	Positive	0-95	48	A19, A29 , (A2), (A3), (A11), (A32), (A43), (A74)
ELISA Class 1	17	Positive	0- 63	32	A29 , (A2), (A32), (A43), (A74)
Luminex 1	12	Positive			A19, A29 , (A2), (A3), (A11), (A32), (A43), (A74)

B-cell screening PRA values ranged from 15 to 100% depending on the technique used. Almost all labs reported positive B cell/ Class 2 antibodies, by all methods. The breakdown by technique is as follows:

Methods CS92	No Labs	Consensus	% PRA Range	Median PRA	Specificity
No-wash B	3	Positive	37-37	37	Inconclusive
Wash-B	8	Positive	15 -63	39	DR7 , (DR4)
AHG-B	0	NT			

Flow Class 2	26	Positive	17-91	54	DR5, DR7, DR9, DR11, DR12, DR53, (DR6), (DR10), (DR14)
ELISA Class 2	11	Positive	28-100	64	DR7, DR9, DR12, (DR10)
Luminex 2	12	Positive			DR5, DR7, DR9, DR11, DR12, DR53, (DR6), (DR10), (DR14)

Crossmatching Results: CS92 Vs CC39

Crossmatch Consensus Results – CS92/CC39

T-cell crossmatches were all consensus negative. B-cell crossmatches were all positive by all methods due to the very strong Class 2 antibodies identified that are present on CC39. Several labs reported that serum CS92 leaked in transit and did not have enough sera to perform their routine clinical testing. The complete breakdown is below.

Methods CS92/CC39	No Labs Total T/B	T-cell			Result	B-cell			Result
		#	#	%T- cell		#	#	%B- cell	
		Pos	Neg	Cons		Pos	Neg	Cons	
No-wash	10	0	10	100	Negative	11	2	85	Positive
Wash	12	0	12	100	Negative	14	1	93	Positive
AHG	21	0	21	100	Negative	NT			NT
Flow	26	4	22	85	Negative	24	2	92	Positive
ELISA	0				Insufficient				

Transplant? Yes: 11 No: 78 More Information needed: 11

CS92 Vs. CC40

Crossmatch Consensus Results – CS92/CC40

T-cell crossmatches were all consensus negative by all methods. B-cell crossmatches were less consistent, but were consensus positive by Wash and Flow methods. The complete breakdown is below.

Methods CS92/CC40	No Labs Total T/B	T-cell			Result	B-cell			Result
		#	#	%T- cell		#	#	%B- cell	
		Pos	Neg	Cons		Pos	Neg	Cons	
No-wash	10	0	10	100	Negative	6	7	46	Inconclusive

Wash	12	0	12	100	Negative	17	2	89	Positive
AHG	21	0	21	100	Negative	NT			NT
Flow	26	1	25	96	Negative	20	5	80	Positive
ELISA	0				Insufficient				Insufficient

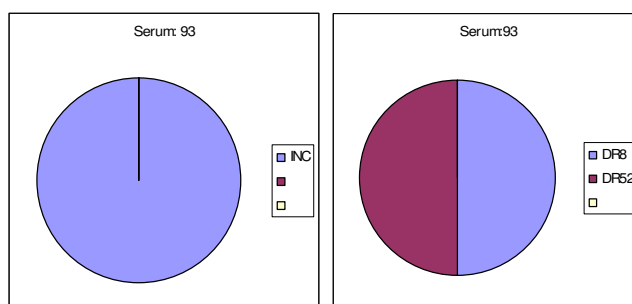
Transplant? Yes: 19 No: 38 More information needed: 42

SERUM CS93

Antibody Analysis:

Anti - Class 1: (B15), (B35), (B75)

Anti- Class 2: **DR8, DR52**, (DR1) (DR3),
(DR5), (DR6), (DR10), (DR11),
(DR12),(DR13) , (DR14),
(DR17), (DR18), (DR103)



PRA Results:

(75%) of the labs reported a T-cell/ Class 1 PRA, just shy of the 80% required for consensus. The Class 1 PRA results ranged from 0 - 37%. Not all methods were consensus positive for this serum. A few labs identified B35 as a potential antibody and Luminex labs also reported B15 and B75. The labs reported the following results:

Methods CS93	No Labs	Consensus	% PRA Range	Media n PRA	Specificity
No-wash T	4	Positive	0 - 9	5	Inconclusive
Wash-T	6	Positive	0 - 9	5	Inconclusive
AHG-T	17	Positive	0 -13	7	Inconclusive
Flow Class I	33	Positive	0 -37	19	(B35)
ELISA Class 1	16	Positive	0 -7	4	Inconclusive
Luminex 1	9	Positive			(B15), (B35), (B75)

The majority of the labs (78%) reported B-cell / Class 2 reactivity. This is just short of the 80% required to have consensus. PRA values ranged from 7-97% depending on the techniques used. Positive consensus was observed in many of the methods tested. The breakdown, by technique is as follows:

Methods CS93	No Labs	Consensus	% PRA Range	Median PRA	Specificity
No-wash B	3	Positive	7- 7	7	Inconclusive
Wash-B	10	Positive	0-60	30	Inconclusive (DR13)
AHG-B	0	NT			NT
Flow Class 2	32	Positive	28 - 97	63	DR8, DR52 , (DR3 , DR5 , DR6, DR7,DR9,DR11, DR12,DR13,DR14, DR17,DR18,DQ3 ,DQ7
ELISA Class 2	15	Positive	60-97	79	DR8, DR52
Luminex 2	9	Positive			DR8, DR52, DR3 , DR5,DR6, DR7,DR9 , (DR11, DR12,DR13,DR14, DR17,DR18,DQ3 ,DQ4,DQ7)

Crossmatching Results: CS93 Vs. CC39

T-cell crossmatches were consensus negative by all methods. The majority of B cell crossmatches were positive by all methods, due to the cell phenotypes and the reported antibodies.

Crossmatch Consensus Results – CS93/CC39

Methods CS93/CC39	No Labs Total T/B	T-cell # Pos	T-cell # Neg	%T-cell Cons	Result	B-cell # Pos	B-cell # Neg	%B-cell Cons	Result
No-wash	10	1	9	90	Negative	12	1	92	Positive
Wash	12	0	12	100	Negative	17	21	89	Positive
AHG	23	0	23	100	Negative	NT			NT
Flow	28	10	18	64	Inconclusive	27	0	100	Positive
ELISA	0				Insufficient				Insufficient

Transplant? Yes: 4 No: 85 More information needed: 11

CS93 Vs. CC40

Crossmatch Consensus Results – CS93/CC40

T-cell crossmatches were predicted to be negative, and they were. B-cell crossmatches were also predicted to be positive, which they were except for Wash B where 53% of the labs reported positive results. The breakdown is below: This serum also leaked and did cause some labs some insufficient quantity of serum to perform the complete crossmatch procedures.

Methods CS93/CC40	No Labs Total T/B	T- cell # Pos	T- cell # Neg	%T- cell Cons	Result	B- cell # Pos	B- cell # Neg	%B- cell Cons	Result
No-wash	10	0	10	100	Negative	11	2	85	Positive
Wash	12	0	12	100	Negative	10	9	53	Inconclusive
AHG	23	0	23	100	Negative	NT			NT
Flow	27	2	26	93	Negative	27	0	100	Positive
ELISA	0				Insufficient				

Transplant? Yes: 8 No: 77 More information needed: 15

Conclusions:

As in the past, labs using enhanced serological methods (AHG) and those labs using solid phase assays (Flow, Luminex and ELISA) reported significantly more antibody specificities than labs using less sensitive serological methods. Luminex and Flow results were separated again this time, for the second time for the analysis. With regard to antibody analysis, Luminex technology appears to be quite sensitive and possibly somewhat more sensitive than flow cytometry. UNOS is preparing to mandate that all labs use sensitive solid phase assays for their upcoming Calculated PRA (CPRA). Currently there are neither ELISA nor Luminex crossmatch techniques available, and no results reported to correctly compare crossmatch results with their respective antibody specificities reported. We encourage any labs using Luminex techniques to submit the results separately from their other solid phase methods. All solid phase methods

are more sensitive than CDC, with the exception of AHG enhanced CDC. The next cell serum send-out will be September 10, 2007. The AFDT sincerely apologizes for any leaking sera tubes. It does not look like it caused any labs to fail any portions. Sera tubes will be better sealed in the future exchanges.