Table 1: New York State Molecular Oncology Proficiency Test -Summary of Results

Sample: NYS# L/L 1 (February 2009)

Overall diagnosis: B-cell clone with IGH and IGK rearrangements, clonal TRB rearrangement, and EBV positive

Assay	SB				PCR				RT-PCR				FISH				All methods			Method used					
	R	G	ind	Cons	R	G	ind	Cons	R	G	ind	Cons	R	G	ind	Cons	R	G	Cons	SB	PCR (qualitative)	PCR (quantitative)	RT-PCR (qualitative)	RT-PCR (quantitative)	FISH
IGH	3			R	22	6		R				I	3			R	28	6	R	Dako (2), home brew (1)	Biomed (9), home brew (15), IVS (6)				Vysis (3)
IGK	2			R	10	1		R				I				I	12	1	R	home brew (1), Dako (1)	Biomed (9), home brew (3)				
IGL		1		I		1		I				I				I	0	2	I	home brew (1)	Biomed (1)				
TRB	2	2		I	7	2		R				I				I	9	4	I/R	home brew (2), Dako (2)	Biomed (6), home brew (3)				
TRG				I	2	25	1	G				I				I	2	25	G		Biomed (6), home brew (18), IVS (5),				
TRD		1		I		1		I				I				I	0	2	I	home brew (1)	Biomed (1)				
IGH/BCL2 MBR		1		I		14		G				I				G	0	18	G	home brew (1)	Biomed (2), IVS (2), home brew (8	home brew (2)			
mcr				I		11		G				I				I	0	11	G		Biomed (2), IVS (1), home brew (7	home brew (2)			
MBR 3'				I		2		G				I				I	0	2	G		Biomed (2)				
MBR/mcr				I				I				I		3		G	0	3	G						Vysis (3)
IGH/CCND1 (Bcl-1)		1		I		8		G				I		3		G	0	12	G	home brew (1)	home brew (4), Biomed (1), other (1)	home brew (2)			Vysis (3)
BCR/ABL1 p210				I				I		23		G				I	0	23	G				home brew (11),	home brew (14), Ipsogen(1), Cepheid(1),	
p190				I				I		19		G				I	0	19	G				home brew (11),	home brew (11), Ipsogen(1)	
p210/190		1		I				I		10		G		3		G	0	14	G	home brew (1)			home brew (1), Roche(2), IVS (1)	home brew (3), Roche(2), Ipsogen (1)	Vysis (2)
Abl kinase domain mutation				I				I				I				I	0	0	I						
PML/RARA Long				I				I		13		G				I	0	13	G				home brew (6), IVS(1)	home brew (7)	
Short				I				I		11		G				I	0	11	G				home brew (5)	home brew (7)	
Variable				I				I		4		G				I	0	4	G				home brew (3)	home brew (2)	
Long/Short/Variable				I				I		1		I		3		G	0	4	G				home brew (1)		Vysis (3)
MYC t(8;14)				I				I				I		3		G	0	3	G						Vysis (3)
AML1/ETO t(8;21)				I				I		7		G		3		G	0	10	G				home brew (5)	home brew (2)	Vysis (3)
NPM/ALK t(2;5)				I				I		1		I		1		I	0	2	I				home brew (1)		Vysis (1)
IGH/BCL-6				I				I				I		2		G	0	2	G						Vysis (2)
ETV6/RUNX1 (Tel-AML1)				I				I		2		G		2		G	0	4	G				home brew (1)	home brew (1)	Vysis (2)
EBV				I	3			R				I				I	3	0	R		home brew (2)	Roche (1),			
KSHV/HHV8				I		3		G				I				I	0	3	G		home brew (3)				
HTLV1				I		2		G				I				I	0	2	G		home brew (2)				
CBFB INV(16)/MYH11				I				I		3		G		3		G	0	6	G				home brew (3)		Vysis (3)
E2A-PBX t(1;19) (4;11)				I				I		1		I				I	0	1	I				home brew (1)		
MLL(11q23)/ AF4 (4;11)				I				I		3		G		3		G	0	6	G				home brew (3)		Vysis (3)
JAK 2 (V617F)				I		27		G		1		I				I	0	28	G		home brew (19), IVS(4), Ipsogen(2)	home brew(3), Ipsogen(1), Invader(1)	home brew (1)		
JAK 2 (Exon 12)				I		2		G		2		G				I	0	4	G		home brew (2)		home brew (2)	home brew (1)	
MPL W 515				I		2		G		1		I				I	0	3	G		home brew (1),	Invader (1)	home brew (1)		
MPL S 505				I		1		I		1		I				I	0	2	I		home brew (1),		home brew (1)		
FLT 3 ITD				I		14		G				I				I	0	14	G		home brew (10), IVS(3), Seegene(1)				
FLT 3 D835				I		12		G				I				I	0	12	G		home brew (8), IVS(3), Seegene(1)				
NPM1 mutation				I		10		G				I				I	0	10	G		home brew (10)				
P53				I		2		G				I		4		G	0	6	G		home brew(2)				Vysis (4)
IgVH mutation				I	2	2*		I	1	3*		N*				I	3	5	I		home brew(2), IVS(1)	IVS(1)	home brew (3), IVS (1)		
c-kit				I		3		G				I				I	0	3	G		home brew (3)				
Other:(MYC,RARA,ALK, Bcl-6), (HFE, RB1, etc)				I		1		I		1		I		1		I	0	1	I						

*** No clonal band detected**

Table 2: New York State Molecular Oncology Proficiency Test -Summary of Results

Sample: NYS# L/L 2 (February 2009)

Overall diagnosis: T-cell clone with TRB and TRG rearrangements

Assay	SB				PCR				RT-PCR				FISH				All methods			Method used					
	R	G	ind	Cons	R	G	ind	Cons	R	G	ind	Cons	R	G	ind	Cons	R	G	Cons	SB	PCR (qualitative)	PCR (quantitative)	RT-PCR (qualitative)	RT-PCR (quantitative)	FISH
IGH		3		G		28		G				I		3		G	0	34	G	Dako (2), home brew (1)	Biomed (9), home brew (15), IVS (6)				Vysis (3)
IGK		2		G		11		G				I				I	0	13	G	home brew (1), Dako (1)	Biomed (9), home brew (3)				
IGL		1		I		1		I				I				I	0	2	I	home brew (1)	Biomed (1)				
TRB	4			R	8	1		R				I				I	12	1	R	home brew (2), Dako (1)	Biomed (5), home brew (3)				
TRG				I	28			R				I				I	28	0	R		Biomed (6), home brew (18), IVS (5),				
TRD		1		I		1		I				I				I	0	2	I	home brew (1)	Biomed (1)				
IGH/BCL2 MBR		1		I		14		G				I				I	0	15	G	home brew (1)	Biomed (2), IVS (2), home	home brew (1)			
mcr				I		11		G				I				I	0	11	G		Biomed (2), IVS (1), home brew (7	home brew (2)			
MBR 3'				I		2		G				I				I	0	2	G		Biomed (2)				
MBR/mcr				I				I				I		3		G	0	3	G						Vysis (3)
IGH/CCND1 (Bcl-1)		1		I		8		G				I		3		G	0	12	G	home brew (1)	home brew (4), Biomed (1), other (1)	home brew (2)			Vysis (3)
BCR/ABL1 p210				I				I		23		G				I	0	23	G				home brew (11),	home brew (14), Ipsogen(1), Cepheid(1),	
p190				I				I		19		G				I	0	19	G				home brew (11),	home brew (11), Ipsogen (1)	
p210/190		1		I				I		10		G		3		G	0	14	G	home brew (1)			home brew (1), Roche(2), IVS (1)	home brew (3), Roche(2), Ipsogen (1)	Vysis (3)
Abl kinase domain mutation				I				I				I				I	0	0	I						
PML/RARA Long				I				I		13		G				I	0	13	G				home brew (6), IVS (1)	home brew (7)	
Short				I				I		11		G				I	0	11	G				home brew (5)	home brew (7)	
Variable				I				I		4		G				I	0	4	G				home brew (3)	home brew (2)	
Long/Short/Variable				I				I		1		I		3		G	0	4	G				home brew (1)		Vysis (3)
MYC t(8;14)				I				I				I		3		G	0	3	G						Vysis (3)
AML1/ETO t(8;21)				I				I		7		G		3		G	0	10	G				home brew (5)	home brew (2)	Vysis (3)
NPM/ALK t(2;5)				I				I		1		I		1		I	0	2	I				home brew (1)		Vysis (1)
IGH/BCL-6				I				I				I		2		G	0	2	G						Vysis (2)
ETV6/RUNX1 (Tel-AML1)				I				I		2		G		2		G	0	4	G				home brew (1)	home brew (1)	Vysis (2)
EBV				I		3		G				I				I	0	3	G		home brew (2)	Roche (1)			
KSHV/HHV8				I		3		G				I				I	0	3	G		home brew (3)				
HTLV1				I		2		G				I				I	0	2	G		home brew (2)				
CBFB INV(16)/MYH11				I				I		4		G		3		G	0	7	G				home brew (3)	home brew (1)	Vysis (3)
E2A-PBX t(1;19) (4;11)				I				I		1		I				I	0	1	I				home brew (1)		
MLL(11q23)/ AF4 (4;11)				I				I		3		G		3		G	0	6	G				home brew (3)		Vysis (3)
JAK 2 (V617F)				I		27		G		1		I				I	0	28	G		home brew (19), IVS(4), Ipsogen(2)	home brew(3), Ipsogen(1), Invader(1)	home brew (1)		
JAK 2 (Exon 12)				I		2		G		2		G				I	0	4	G		home brew (2)		home brew (1)	home brew (1)	
MPL W 515				I		2		G		1		I				I	0	3	G		home brew (1),	Invader(1)	home brew (1)		
MPL S 505				I		1		I		1		I				I	0	2	I		home brew (1),		home brew (1)		
FLT 3 ITD				I		14		G				I				I	0	14	G		home brew (10), IVS(3), Seegene(1)				
FLT 3 D835				I		12		G				I				I	0	12	G		home brew (8), IVS(3), Seegene(1)				
NPM1 mutation				I		10		G				I				I	0	10	G		home brew (10)				
P53				I	1	1		I				I		4		G	1	5	I/G		home brew(2)				Vysis (4)
IgVH mutation				I		4*		N*		4*		N*				I	0	8*	N*		home brew(2), IVS(1)	IVS(1)	home brew (3), IVS (1)		
c-kit				I		3		G				I				I	0	3	G		home brew(3)				
Other:(MYC,RARA,ALK, Bcl-6), (HFE, RB1, etc)				I		1		I		1		I		1		I	0	1	I						

*** No clonal band detected**

Table 3: New York State Molecular Oncology Proficiency Test -Summary of Results

Sample: NYS# L/L 3 (February 2009)

Overall diagnosis: B-cell clone with IGH and IGK rearrangements and EBV positive

Assay	SB				PCR				RT-PCR				FISH				All methods			Method used					
	R	G	ind	Cons	R	G	ind	Cons	R	G	ind	Cons	R	G	ind	Cons	R	G	Cons	SB	PCR (qualitative)	PCR (quantitative)	RT-PCR (qualitative)	RT-PCR (quantitative)	FISH
IGH	3			R	27	1		R				I		3		G	30	4	R/G	Dako (2), home brew (1)	Biomed (9), home brew (15), IVS (6)				Vysis (3)
IGK	2			R	11			R				I				I	13	0	R	home brew (1), Dako (1)	Biomed (9), home brew (3)				
IGL		1		I		1		I				I				I	0	2	I	home brew (1)	Biomed (1)				
TRB		4		G	1	8		I				I				I	1	12	G	home brew (2), Dako (2)	Biomed (6), home brew (3),				
TRG				I	1	27		G				I				I	1	27	G		Biomed (6), home brew (18), IVS (5),				
TRD		1		I		1		I				I				I	0	2	I	home brew (1)	Biomed (1)				
IGH/BCL2 MBR		1		I		14		G				I				I	0	15	G	home brew (1)	Biomed (2), IVS (2), home brew (8	home brew (2)			
mcr				I		11		G				I				I	0	11	G		Biomed (2), IVS (1), home brew (7	home brew (2)			
MBR 3'				I		2		G				I				I	0	2	G		Biomed (2)				
MBR/mcr				I				I				I		3		G	0	3	G						Vysis (3)
IGH/CCND1 (Bcl-1)		1		I		8		G				I		3		G	0	12	G	home brew (1)	home brew (4), Biomed (1), other (1)	home brew (2)			Vysis (3)
BCR/ABL1 p210				I				I		23		G				I	0	23	G				home brew (11)	home brew (14), Ipsogen(1), Cepheid(1)	
p190				I				I		19		G				I	0	19	G				home brew (11)	home brew (11), Ipsogen(1)	
p210/190		1		I				I		10		G		3		G	0	14	G	home brew (1)			home brew (1), Roche(2), IVS (1)	home brew (3), Roche(2), Ipsogen(1)	Vysis (3)
Abl kinase domain mutation				I				I				I				I	0	0	I						
PML/RARA Long				I				I		13		G				I	0	13	G				home brew (6), IVS(1)	home brew (7)	
Short				I				I		11		G				I	0	11	G				home brew (5)	home brew (7)	
Variable				I				I		4		G				I	0	4	G				home brew (3)	home brew (2)	
Long/Short/Variable				I				I		1		I		3		G	0	4	G				home brew (1)		Vysis (3)
MYC t(8;14)				I				I				I		3		G	0	3	G						Vysis (3)
AML1/ETO t(8;21)				I				I		7		G		3		G	0	10	G				home brew (5)	home brew (2)	Vysis (3)
NPM/ALK t(2;5)				I				I		1		I		1		I	0	2	I				home brew (1)		Vysis (1)
IGH/BCL-6				I				I				I		2		G	0	2	G						Vysis (2)
ETV6/RUNX1 (Tel-AML1)				I				I		2		G		2		G	0	4	G				home brew (1)	home brew (1)	Vysis (2)
EBV				I	3			R				I				I	3	0	R		home brew (2)	Roche (1),			
KSHV/HHV8				I		3		G				I				I	0	3	G		home brew (3)				
HTLV1				I		2		G				I				I	0	2	G		home brew (2)				
CBFB INV(16)/MYH11				I				I		4		G		3		G	0	7	G				home brew (3)	home brew (1)	Vysis (3)
E2A-PBX t(1;19) (4;11)				I				I		1		I				I	0	1	I				home brew (1)		
MLL(11q23)/ AF4 (4;11)				I				I		3		G		3		G	0	6	G				home brew (3)		Vysis (3)
JAK 2 (V617F)				I		27		G		1		I				I	0	28	G		home brew (19), IVS(4), Ipsogen(2)	home brew(3), Ipsogen(1), Invader(1)	home brew (1)		
JAK 2 (Exon 12)				I		2		G		2		G				I	0	4	G		home brew (2)		home brew (1)	home brew (1)	
MPL W 515				I		2		G		1		I				I	0	3	G		home brew (1)	Invader(1)	home brew (1)		
MPL S 505				I		1		I		1		I				I	0	2	I		home brew (1)		home brew (1)		
FLT 3 ITD				I		14		G				I				I	0	14	G		home brew (10), IVS(3), Seegene(1)				
FLT 3 D835				I		12		G				I				I	0	12	G		home brew (8), IVS(3), Seegene(1)				
NPM1 mutation				I		10		G				I				I	0	10	G		home brew (10)				
P53				I		2		G				I		4		G	0	6	G		home brew(2)				Vysis (4)
IgVH mutation				I	2	2*		I	2	2*		I				I	4	4	I		home brew(2), IVS(1)	IVS(1)	home brew (3), IVS (1)		
c-kit				I		3		G				I				I	0	3	G		home brew(3)				
Other:(MYC,RARA,ALK, Bcl-6), (HFE, RB1, etc)				I		1		I		1		I		1		I	0	1	I						

*** No clonal band detected**