STEM CELL LABORATORY (STCL)

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DOCUMENT TITLE:

Immune Reconstitution

DOCUMENT NOTES:

Document Information

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Control Information

Author: MGREESE	**Owner:** MGREESE
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Immune Reconstitution Clinical Flow Cytometry Results

Patient:		Hematology Counts from sample		
History #:		WBC/µl x 10^3		
Study Date:		% Lymphs		
Days Post Tx:		ALC/µl	0	ALC <200. 1 tube only tested.
Reviewed by:				
Date Reviewed:		Note: #DIV/0!		

Results

Basic Lymphocyte Subsets		Other T-cell Subsets of Interest		
Description	Cells/µl	Description	% CD3+	
Flow ALC	0	CD45RA+/62L+ (RTE)	0	
CD16/56+ NK cell	0	CD4+	#DIV/0!	
CD19+ B cell	0		% CD4+	
CD3+ T-cell	0	CD45RA+/CD62L+(RTE)	0	
CD4+ T-cell	0	CD25*+/CD62L+(T-Reg)	0	
CD8+ T-cell	0	Total CD25*+	0	
CD3/16+56 dual pos. "NKT cells"	0		% CD8+	
		CD57*+/CD28- ("CTL")	0	
Dendritic Cell Subsets		HLA-DR*+ ("Activated")	0	
Description	Cells/µl			
CD123+ ('Lymph')	0.0			
CD11c+ ('Myeloid')	0.0			

**This test was developed and its performance characteristics determined by the Stem Cell Laboratory. It has not been cleared or approved by the U.S. Food and Drug Administration. The FDA has determined that such clearance or approval is not necessary. This test is used for clinical purposes. It should not be regarded as investigational or for research. This laboratory is certified under the Clinical Laboratory Improvement Amendments of 1988 ("CLIA") as qualified to perform high complexity clinical testing. CLIA# 34D1005310, CAP# 7181142*

Normal ranges of Lymphocyte and Dendritic Cell (DC) subsets in the circulation
Absolute (#/µl), Relative size (%)

	****2 mos-2 years (mean/90% range)*	****2-5 years (mean/90% range)*	****5-10 years (mean/90% range)*	***Adult (mean ± 1SD)*
Abs $CD3^+$ T cells	**3900**	**1900**	**1800**	**1622**
	(700-11500)	(850-4300)	(770-4000)	(862-2382)
Abs $CD4^+$ T cells	**2700**	**1100**	**1000**	**1043**
	(1000-7200)	(500-2700)	(400-2500)	(504-1582)
Abs $CD8^+$ T cells	**1000**	**600**	**600**	**552**
	(200-5400)	(200-1800)	(200-1700)	(286-818)
Abs $CD19^+$ B cells	**940**	**490**	**290**	**288**
	(110-7700)	(180-1300)	(100-800)	(109-467)
Abs CD3- / $CD16+56^+$ NK cells	**480**	**180**	**200**	**290**
	(55-4000)	(61-510)	(70-590)	(104-476)
*Abs $CD11c^+$ 'Myeloid DC'	NA	NA	NA	**13** (3.7-23.0)
*Abs $CD123c^+$ 'Lymphoid DC'	NA	NA	NA	**8** (3.7-12.3)
%Recent Thymic Emigrant (CD3+ CD4+CD45RA+CD62L+)	**74%** **(40-100)**	**62%** (37-100)	**58%** (41-81)	**40%** (25-55)
% $CD25^+$ T cells	NA	NA	NA	**13%** (±10.5)
%CD8+/CD57+/CD28- (CTL)	NA	NA	NA	**13** (±11.1)
% CD8+/HLA-DR^+ T cells	NA	NA	NA	**24** (±11)

***Pediatric Abs. T, B, NK cell Reference ranges and % RTE were adopted from E.J.H. Schatorje et al., Scandinavian Journal of Immunology,2012,75, 436-444; *Szabolcs et al. Stem Cells 2003: 21 : 296,**Adult Range (not including DC ranges) established by testing 33 healthy volunteer donors in the Stem Cell Laboratory (~90 test samples); NA : Not Available

Immune Reconstitution Clinical Flow Cyton

Patient:	Patient name	Hemat
History #:	Pt. history number	WBC/µl x 10^3
Study Date:	date of testing	% Lymphs
Days Post Tx:	time point pre or post tx	ALC/µl
Reviewed by:	Initial of reviewer	
Date Reviewed:	date of review and entry	Note:

Results

Basic Lymphocyte Subsets		Other
Description	Cells/µl	Description
Flow ALC	autofills after dilution is muliplied	CD45RA+/62L+ (RTE)
CD16/56+ NK cell	autofills after dilution is muliplied	CD4+
CD19+ B cell	autofills after dilution is	
CD3+ T-cell	autofills after dilution is muliplied	CD45RA+/CD62L+(RTE)
CD4+ T-cell	autofills after dilution is muliplied	CD25*+/CD62L+(T-Reg)
CD8+ T-cell	autofills after dilution is muliplied	Total CD25*+
CD3/16+56 dual pos. "NKT cells"	atuofills directly	
		CD57*+/CD28- ("CTL")
Dendritic Cell Subsets		HLA-DR*+ ("Activated")
Description	Cells/µl	
CD123+ ('Lymph')	autofills directly	
CD11c+ ('Myeloid')	autofills directly	

**This test was developed and its performance characteristics determined by the Stem Cell Laboratory. It has not b*
The FDA has determined that such clearance or approval is not necessary. This test is used for clinical purposes research. This laboratory is certified under the Clinical Laboratory Improvement Amendments of 1988 ("CLIA") a CLIA# 34D1005310, CAP# 7181142

Normal ranges of Lymphocyte and Dendritic Cell (DC) sul Absolute (#/µl), Relative size (%)		
	***2 mos-2 years (mean/90% range)	***2-5 years (mean/90% range)

Abs $CD3^+$ T cells	**3900**	**1900**
	(700-11500)	(850-4300)
Abs $CD4^+$ T cells	**2700**	**1100**
	(1000-7200)	(500-2700)
Abs $CD8^+$ T cells	**1000**	**600**
	(200-5400)	(200-1800)
Abs $CD19^+$ B cells	**940**	**490**
	(110-7700)	(180-1300)
Abs CD3- / CD16+56^+ NK cells	**480**	**180**
	(55-4000)	(61-510)
***Abs $CD11c^+$ 'Myeloid DC'**	NA	NA
***Abs $CD123c^+$ 'Lymphoid DC'**	NA	NA
%Recent Thymic Emigrant (CD3+ CD4+CD45RA+CD62L+)	**74% (40-100)**	**62%** (37-100)
% $CD25^+$ T cells	NA	NA
%CD8+/CD57+/CD28- (CTL)	NA	NA
% CD8+/HLA-DR^+ T cells	NA	NA

***Pediatric Abs. T, B, NK cell Reference ranges and % RTE were adopted from E.J.H. Schatorje et al 444; *Szabolcs et al. Stem Cells 2003: 21 : 296,**Adult Range (not including DC ranges) established by Laboratory (~90 test samples); NA : Not Available

ıetry Results

ology Counts from sample	
hematology analyzer result	
hematology analyzer result	
autofill	Full Panel
autofill	

Enter dilution factor below

ɔr if sample is diluted, otherwise leave as 1

T-cell Subsets of Interest

% CD3+		Enter % values below	Enter **Cells/µl** below
autofills		from tube 3 analysis	autofills
autofills		#VALUE!	6+56+/CD3 neg absol
% CD4+		% of CD4+	CD19 absolute
autofills		from tube 3 analysis	CD3 absolute
autofills		from tube 4 analysis	CD4 absolute
autofills		from tube 4 analysis	CD8 absolute
% CD8+		% fo CD8+	NKT absolute
autofills		from tube 5 analysis	
autofills		from tube 5 analysis	
			Cells/µl
		ALCs compared	From tube 8 analysis
			From tube 8 analysis

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. It should not be regarded as investigational or for
s qualified to perform high complexity clinical testing.

ɔsets in the circulation

***5-10 years (mean/90% range)	**Adult (mean ±1SD)

1800	**1622**
(770-4000)	(862-2382)
1000	**1043**
(400-2500)	(504-1582)
600	**552**
(200-1700)	(286-818)
290	**288**
(100-800)	(109-467)
200	**290**
(70-590)	(104-476)
NA	**13** (3.7-23.0)
NA	**8** (3.7-12.3)
58% **(41-81)**	**40%** (25-55)
NA	**13%** (±10.5)
NA	**13** (±11.1)
NA	**24** (±11)

., Scandinavian Journal of Immunology,2012,75, 436-
/ testing 33 healthy volunteer donors in the Stem Cell

ALC 1	ALC 2
	Tube 2 ALC or Tube 1 again for 1
Tube 1 ALC	tube assay

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Signature Manifest

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