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## **Hematology Proficiency Test Program**

### **Statistical Summary – June 2015 (Event 15-2)**

This statistical report summarizes participant data for the Hematology proficiency survey shipped 8 June 2015.

Five test samples were distributed to participants for each test category:

Routine Blood Counts (B11, B12, B13, B14, B15)

Routine Coagulation (C11, C12, C13, C14, C15)

Cell Identification (411, 412, 413, 414, 415)

Results for individual instrument and reagent systems where the number of laboratories using those systems is three or greater are provided. Mean and Standard Deviation ( $\pm 1$  SD) values are calculated by a robust statistical technique that does not assume a Gaussian distribution.

Disclaimer:

Note: The use of brand and/or trade names in this report does not constitute an endorsement of the products on the part of the Wadsworth Center or the New York State Department of Health.

Should you have any questions regarding this report, please contact the Hematology Section at (518) 474-9878.

Summary of Participant Responses  
 Mean ± One Standard Deviation

White Cell Count (x 10<sup>9</sup>/L)

Specimen: B11	Specimen: B12	Specimen: B13	Specimen: B14	Specimen: B15	Number	[Code] Instrument or Reagent System
16.66 ± 0.84	9.05 ± 0.40	28.42 ± 1.08	7.41 ± 0.43	5.05 ± 0.21	n = 415	[---] All Methods & Instruments
<b>&lt;Instruments&gt;</b>						
17.29 ± 0.75	9.30 ± 0.41	29.24 ± 1.02	7.91 ± 0.43	5.39 ± 0.22	n = 5	[ABG] Abbott Cell Dyn 1700
16.70 ± 0.36	8.80 ± 0.12	28.93 ± 0.23	7.27 ± 0.15	5.17 ± 0.10	n = 3	[ABK] Abbott Cell Dyn 3200
16.71 ± 0.42	9.16 ± 0.16	28.87 ± 0.55	7.29 ± 0.17	5.20 ± 0.10	n = 11	[ABM] Abbott Cell Dyn 3700
16.69 ± 0.31	9.06 ± 0.19	28.37 ± 0.74	7.67 ± 0.23	5.11 ± 0.16	n = 11	[ABS] Abbott Cell Dyn Sapphire
16.86 ± 0.54	9.14 ± 0.23	29.25 ± 0.90	7.45 ± 0.16	5.17 ± 0.19	n = 17	[ABT] Abbott Cell Dyn Ruby
16.53 ± 0.56	8.81 ± 0.20	27.42 ± 0.61	7.20 ± 0.19	4.92 ± 0.13	n = 9	[BTD] Siemens Advia 120
16.63 ± 0.65	8.94 ± 0.30	27.48 ± 0.89	7.29 ± 0.30	4.87 ± 0.19	n = 32	[BTE] Siemens Advia 2120
17.08 ± 0.33	9.21 ± 0.16	29.06 ± 0.41	7.71 ± 0.18	5.13 ± 0.08	n = 59	[CUL] Coulter UniCel DxH 600,800
16.90 ± 0.09	9.07 ± 0.14	29.02 ± 0.42	7.52 ± 0.16	5.00 ± 0.00	n = 5	[CUS] Coulter ACT 5 diff
17.10 ± 0.46	9.28 ± 0.18	29.06 ± 0.44	7.83 ± 0.25	5.25 ± 0.11	n = 18	[CUT] Coulter ACT series,not ACT5 diff
18.15 ± 0.50	9.44 ± 0.27	29.94 ± 0.67	8.36 ± 0.31	5.23 ± 0.15	n = 7	[CUW] Coulter HMX
16.54 ± 0.49	9.36 ± 0.14	28.48 ± 0.40	7.44 ± 0.17	5.12 ± 0.11	n = 31	[CUX] Coulter LH750,755
16.50 ± 0.37	9.32 ± 0.15	28.57 ± 0.45	7.42 ± 0.22	5.10 ± 0.10	n = 15	[CUY] Coulter LH 780
18.51 ± 0.30	9.49 ± 0.26	30.27 ± 0.69	8.37 ± 0.34	5.32 ± 0.09	n = 16	[CUZ] Coulter LH500
16.93 ± 0.50	8.98 ± 0.15	28.97 ± 0.42	7.67 ± 0.23	5.00 ± 0.09	n = 3	[MEB] Medonic M-series
16.41 ± 0.27	8.77 ± 0.09	27.60 ± 0.42	7.37 ± 0.25	4.86 ± 0.16	n = 4	[ROB] ABX Pentra series
16.73 ± 0.41	8.73 ± 0.05	28.04 ± 1.11	7.30 ± 0.18	4.81 ± 0.20	n = 3	[ROC] ABX Micro
15.40 ± 0.32	8.48 ± 0.26	27.48 ± 0.75	6.88 ± 0.19	4.87 ± 0.11	n = 26	[SYA] Sysmex XE 5000
15.62 ± 0.95	8.27 ± 0.46	27.23 ± 0.90	7.05 ± 0.17	4.67 ± 0.25	n = 19	[SYC] Sysmex XN-series
15.02 ± 0.24	8.35 ± 0.19	26.61 ± 0.72	6.75 ± 0.19	4.84 ± 0.10	n = 3	[SYG] Sysmex POChi
16.49 ± 0.61	8.91 ± 0.18	28.20 ± 0.52	7.15 ± 0.31	4.98 ± 0.12	n = 20	[SYI] Sysmex XT-2000i,XT-1800i
16.17 ± 0.88	8.77 ± 0.36	27.67 ± 1.24	7.08 ± 0.23	4.90 ± 0.18	n = 6	[SYL] Sysmex XE 2100C
15.39 ± 0.17	8.73 ± 0.26	27.28 ± 0.70	6.84 ± 0.15	4.84 ± 0.14	n = 3	[SYN] Sysmex XE 2100DC
15.54 ± 0.40	8.44 ± 0.20	27.32 ± 0.64	6.85 ± 0.21	4.87 ± 0.13	n = 20	[SYO] Sysmex XE2100
17.14 ± 0.38	9.29 ± 0.25	28.96 ± 0.67	7.60 ± 0.21	5.16 ± 0.16	n = 34	[SYP] Sysmex XS-1000i,XS-1000iAL
15.03 ± 0.28	8.43 ± 0.16	27.10 ± 0.57	6.71 ± 0.21	4.85 ± 0.13	n = 7	[SYQ] Sysmex XE 2100D(Blood Center)
16.52 ± 0.35	8.93 ± 0.19	27.99 ± 0.54	7.25 ± 0.27	4.91 ± 0.12	n = 18	[SYV] Sysmex XT 4000i

Summary of Participant Responses  
 Mean ± One Standard Deviation

Red Cell Count (x 10 <sup>12</sup> /L)						
Specimen: B11	Specimen: B12	Specimen: B13	Specimen: B14	Specimen: B15	Number	[Code] Instrument or Reagent System
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5.114 ± 0.086	4.724 ± 0.074	3.137 ± 0.063	6.118 ± 0.109	3.128 ± 0.060	n = 416	[---] All Methods & Instruments
<b>&lt;Instruments&gt;</b>						
5.197 ± 0.121	4.755 ± 0.084	3.231 ± 0.081	6.102 ± 0.103	3.182 ± 0.062	n = 5	[ABG] Abbott Cell Dyn 1700
5.110 ± 0.064	4.736 ± 0.026	3.116 ± 0.074	6.083 ± 0.160	3.122 ± 0.113	n = 3	[ABK] Abbott Cell Dyn 3200
5.079 ± 0.081	4.740 ± 0.066	3.131 ± 0.048	6.151 ± 0.072	3.156 ± 0.026	n = 10	[ABM] Abbott Cell Dyn 3700
5.238 ± 0.067	4.807 ± 0.039	3.176 ± 0.045	6.331 ± 0.064	3.175 ± 0.040	n = 11	[ABS] Abbott Cell Dyn Sapphire
5.307 ± 0.100	4.844 ± 0.093	3.128 ± 0.071	6.424 ± 0.130	3.137 ± 0.062	n = 17	[ABT] Abbott Cell Dyn Ruby
5.109 ± 0.062	4.699 ± 0.048	3.155 ± 0.040	6.079 ± 0.107	3.133 ± 0.027	n = 9	[BTD] Siemens Advia 120
5.112 ± 0.112	4.662 ± 0.097	3.138 ± 0.068	6.084 ± 0.117	3.116 ± 0.067	n = 33	[BTE] Siemens Advia 2120
5.105 ± 0.071	4.701 ± 0.057	3.147 ± 0.042	6.147 ± 0.079	3.125 ± 0.036	n = 59	[CUL] Coulter UniCel DxH 600,800
5.136 ± 0.170	4.738 ± 0.166	3.162 ± 0.104	6.068 ± 0.129	3.115 ± 0.074	n = 5	[CUS] Coulter ACT 5 diff
5.138 ± 0.111	4.707 ± 0.105	3.118 ± 0.059	6.123 ± 0.166	3.099 ± 0.045	n = 18	[CUT] Coulter ACT series,not ACT5 diff
5.242 ± 0.099	4.755 ± 0.031	3.243 ± 0.072	6.171 ± 0.168	3.220 ± 0.086	n = 7	[CUW] Coulter HMX
5.143 ± 0.051	4.735 ± 0.045	3.145 ± 0.034	6.068 ± 0.052	3.117 ± 0.031	n = 31	[CUX] Coulter LH750,755
5.144 ± 0.046	4.734 ± 0.036	3.139 ± 0.024	6.080 ± 0.058	3.118 ± 0.028	n = 15	[CUY] Coulter LH 780
5.178 ± 0.065	4.762 ± 0.079	3.182 ± 0.071	6.087 ± 0.119	3.149 ± 0.057	n = 16	[CUZ] Coulter LH500
5.054 ± 0.039	4.635 ± 0.019	3.025 ± 0.019	5.995 ± 0.108	3.044 ± 0.062	n = 3	[MEB] Medonic M-series
5.035 ± 0.067	4.654 ± 0.048	3.061 ± 0.026	5.952 ± 0.031	3.014 ± 0.023	n = 4	[ROB] ABX Pentra series
4.999 ± 0.020	4.554 ± 0.039	2.981 ± 0.072	5.949 ± 0.085	2.933 ± 0.095	n = 3	[ROC] ABX Micro
5.062 ± 0.055	4.746 ± 0.057	3.172 ± 0.045	6.059 ± 0.080	3.179 ± 0.041	n = 26	[SYA] Sysmex XE 5000
5.131 ± 0.058	4.719 ± 0.058	3.053 ± 0.040	6.182 ± 0.050	3.072 ± 0.058	n = 19	[SYC] Sysmex XN-series
5.126 ± 0.047	4.752 ± 0.032	3.128 ± 0.041	6.170 ± 0.100	3.115 ± 0.019	n = 3	[SYG] Sysmex POChi
5.070 ± 0.072	4.704 ± 0.047	3.116 ± 0.028	6.119 ± 0.072	3.127 ± 0.032	n = 20	[SYI] Sysmex XT-2000i,XT-1800i
5.126 ± 0.041	4.757 ± 0.039	3.154 ± 0.025	6.128 ± 0.070	3.158 ± 0.023	n = 6	[SYL] Sysmex XE 2100C
5.050 ± 0.072	4.755 ± 0.054	3.178 ± 0.032	6.037 ± 0.067	3.170 ± 0.018	n = 3	[SYN] Sysmex XE 2100DC
5.081 ± 0.041	4.761 ± 0.055	3.180 ± 0.033	6.055 ± 0.065	3.187 ± 0.028	n = 20	[SYO] Sysmex XE2100
5.080 ± 0.051	4.678 ± 0.042	3.050 ± 0.032	6.156 ± 0.058	3.056 ± 0.035	n = 34	[SYP] Sysmex XS-1000i,XS-1000iAL
5.103 ± 0.029	4.772 ± 0.014	3.203 ± 0.030	6.101 ± 0.083	3.213 ± 0.018	n = 7	[SYQ] Sysmex XE 2100D(Blood Center)
5.097 ± 0.050	4.737 ± 0.051	3.139 ± 0.028	6.144 ± 0.061	3.157 ± 0.042	n = 18	[SYV] Sysmex XT 4000i

Summary of Participant Responses  
Mean ± One Standard Deviation

Hemoglobin (g/dL)

Specimen: B11	Specimen: B12	Specimen: B13	Specimen: B14	Specimen: B15	Number	[Code] Instrument or Reagent System
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15.14 ± 0.29	13.59 ± 0.20	8.65 ± 0.26	19.29 ± 0.36	9.33 ± 0.17	n = 420	[---] All Methods & Instruments
<b>&lt;Instruments&gt;</b>						
15.39 ± 0.36	13.74 ± 0.35	9.10 ± 0.21	19.47 ± 0.43	9.49 ± 0.21	n = 5	[ABG] Abbott Cell Dyn 1700
15.75 ± 0.27	13.90 ± 0.09	9.07 ± 0.15	19.43 ± 0.41	9.48 ± 0.16	n = 3	[ABK] Abbott Cell Dyn 3200
15.47 ± 0.20	13.77 ± 0.13	9.14 ± 0.14	19.38 ± 0.17	9.52 ± 0.12	n = 11	[ABM] Abbott Cell Dyn 3700
15.57 ± 0.33	13.90 ± 0.22	8.93 ± 0.14	19.37 ± 0.47	9.56 ± 0.17	n = 11	[ABS] Abbott Cell Dyn Sapphire
15.78 ± 0.30	13.91 ± 0.25	9.05 ± 0.17	19.88 ± 0.43	9.53 ± 0.17	n = 17	[ABT] Abbott Cell Dyn Ruby
15.34 ± 0.28	13.66 ± 0.21	8.94 ± 0.19	19.42 ± 0.08	9.53 ± 0.15	n = 9	[BTD] Siemens Advia 120
15.23 ± 0.20	13.62 ± 0.22	9.07 ± 0.20	19.36 ± 0.28	9.51 ± 0.16	n = 33	[BTE] Siemens Advia 2120
14.96 ± 0.19	13.54 ± 0.15	8.56 ± 0.11	19.23 ± 0.25	9.33 ± 0.11	n = 59	[CUL] Coulter UniCel DxH 600,800
15.33 ± 0.30	13.64 ± 0.35	8.70 ± 0.15	19.41 ± 0.38	9.36 ± 0.14	n = 5	[CUS] Coulter ACT 5 diff
15.01 ± 0.26	13.35 ± 0.19	8.56 ± 0.15	19.05 ± 0.33	9.22 ± 0.15	n = 18	[CUT] Coulter ACT series,not ACT5 diff
15.33 ± 0.21	13.54 ± 0.08	8.99 ± 0.18	19.37 ± 0.33	9.39 ± 0.18	n = 7	[CUW] Coulter HMX
15.09 ± 0.21	13.57 ± 0.16	8.60 ± 0.12	18.85 ± 0.17	9.32 ± 0.08	n = 31	[CUX] Coulter LH750,755
15.13 ± 0.22	13.58 ± 0.11	8.59 ± 0.11	18.87 ± 0.25	9.32 ± 0.09	n = 15	[CUY] Coulter LH 780
15.42 ± 0.19	13.56 ± 0.21	8.91 ± 0.08	19.17 ± 0.32	9.41 ± 0.13	n = 16	[CUZ] Coulter LH500
15.49 ± 0.29	13.65 ± 0.36	9.07 ± 0.14	19.24 ± 0.65	9.32 ± 0.24	n = 3	[MEB] Medonic M-series
15.24 ± 0.18	13.63 ± 0.16	8.57 ± 0.09	19.58 ± 0.21	9.20 ± 0.08	n = 4	[ROB] ABX Pentra series
15.17 ± 0.23	13.57 ± 0.14	8.75 ± 0.19	19.23 ± 0.31	9.28 ± 0.24	n = 3	[ROC] ABX Micro
14.98 ± 0.13	13.50 ± 0.13	8.52 ± 0.10	19.31 ± 0.18	9.28 ± 0.11	n = 26	[SYA] Sysmex XE 5000
15.18 ± 0.19	13.55 ± 0.15	8.44 ± 0.10	19.49 ± 0.21	9.16 ± 0.12	n = 19	[SYC] Sysmex XN-series
15.10 ± 0.00	13.53 ± 0.05	8.53 ± 0.05	19.33 ± 0.14	9.16 ± 0.10	n = 3	[SYG] Sysmex POChi
14.89 ± 0.19	13.55 ± 0.08	8.47 ± 0.10	19.08 ± 0.31	9.21 ± 0.11	n = 20	[SYI] Sysmex XT-2000i,XT-1800i
15.08 ± 0.15	13.60 ± 0.08	8.43 ± 0.06	19.46 ± 0.21	9.18 ± 0.08	n = 7	[SYL] Sysmex XE 2100C
14.97 ± 0.05	13.53 ± 0.05	8.53 ± 0.05	19.24 ± 0.10	9.33 ± 0.05	n = 3	[SYN] Sysmex XE 2100DC
15.01 ± 0.15	13.48 ± 0.15	8.51 ± 0.12	19.35 ± 0.29	9.30 ± 0.14	n = 20	[SYO] Sysmex XE2100
15.27 ± 0.16	13.67 ± 0.14	8.52 ± 0.09	19.58 ± 0.18	9.25 ± 0.10	n = 34	[SYP] Sysmex XS-1000i,XS-1000iAL
15.05 ± 0.11	13.53 ± 0.06	8.53 ± 0.11	19.45 ± 0.21	9.34 ± 0.09	n = 7	[SYQ] Sysmex XE 2100D(Blood Center)
14.92 ± 0.17	13.60 ± 0.11	8.45 ± 0.08	19.07 ± 0.22	9.21 ± 0.10	n = 18	[SYV] Sysmex XT 4000i

Summary of Participant Responses

Mean ± One Standard Deviation

Hematocrit (%)

Specimen: B11	Specimen: B12	Specimen: B13	Specimen: B14	Specimen: B15	Number	[Code] Instrument or Reagent System
44.02 ± 2.08	40.12 ± 1.59	25.99 ± 1.35	56.19 ± 2.64	28.24 ± 1.49	n = 420	[---] All Methods & Instruments
<b>&lt;Instruments&gt;</b>						
44.21 ± 2.71	39.51 ± 2.01	25.64 ± 0.98	56.15 ± 2.47	27.96 ± 1.26	n = 5	[ABG] Abbott Cell Dyn 1700
38.36 ± 0.84	34.95 ± 0.36	22.43 ± 0.51	48.84 ± 0.98	24.23 ± 0.77	n = 3	[ABK] Abbott Cell Dyn 3200
45.04 ± 1.00	41.14 ± 0.92	26.17 ± 0.53	58.49 ± 1.15	28.80 ± 0.57	n = 11	[ABM] Abbott Cell Dyn 3700
41.65 ± 0.49	37.43 ± 0.42	23.84 ± 0.36	54.25 ± 1.04	26.01 ± 0.38	n = 11	[ABS] Abbott Cell Dyn Sapphire
38.92 ± 0.92	35.04 ± 0.86	21.92 ± 0.66	50.58 ± 1.47	23.77 ± 0.64	n = 17	[ABT] Abbott Cell Dyn Ruby
44.98 ± 2.40	40.28 ± 1.52	26.85 ± 0.36	55.94 ± 2.26	28.26 ± 0.56	n = 3	[ABU] Abbott Cell Dyn Emerald
38.95 ± 0.60	34.95 ± 0.37	22.36 ± 0.33	50.61 ± 1.01	24.52 ± 0.51	n = 9	[BTD] Siemens Advia 120
39.09 ± 0.90	34.67 ± 0.61	22.34 ± 0.52	50.92 ± 1.13	24.35 ± 0.53	n = 33	[BTE] Siemens Advia 2120
45.60 ± 0.73	41.10 ± 0.50	26.81 ± 0.36	58.86 ± 0.81	28.95 ± 0.36	n = 59	[CUL] Coulter UniCel DxH 600,800
42.60 ± 1.24	38.15 ± 1.35	24.69 ± 0.72	53.94 ± 1.56	26.33 ± 0.80	n = 5	[CUS] Coulter ACT 5 diff
44.87 ± 1.07	40.17 ± 1.12	25.94 ± 0.60	57.16 ± 1.72	28.04 ± 0.48	n = 18	[CUT] Coulter ACT series,not ACT5 diff
45.73 ± 0.82	40.73 ± 0.41	26.91 ± 0.52	57.44 ± 0.74	28.99 ± 0.69	n = 7	[CUW] Coulter HMX
45.35 ± 0.54	40.89 ± 0.45	26.28 ± 0.33	57.35 ± 0.47	28.29 ± 0.31	n = 31	[CUX] Coulter LH750,755
45.41 ± 0.37	40.97 ± 0.36	26.24 ± 0.34	57.75 ± 0.63	28.37 ± 0.33	n = 15	[CUY] Coulter LH 780
45.01 ± 0.74	40.53 ± 0.67	26.29 ± 0.61	56.83 ± 1.18	28.38 ± 0.56	n = 16	[CUZ] Coulter LH500
43.35 ± 0.63	38.93 ± 0.51	24.33 ± 0.14	55.26 ± 1.55	27.05 ± 0.82	n = 3	[MEB] Medonic M-series
42.22 ± 3.23	37.20 ± 2.36	24.00 ± 0.90	55.40 ± 4.72	25.00 ± 0.90	n = 3	[MHC] Microhematocrit
41.36 ± 0.57	37.17 ± 0.30	24.35 ± 0.12	51.83 ± 0.27	25.90 ± 0.18	n = 4	[ROB] ABX Pentra series
43.05 ± 0.27	38.47 ± 0.50	24.27 ± 0.69	55.14 ± 1.02	26.04 ± 1.08	n = 3	[ROC] ABX Micro
43.91 ± 0.62	40.46 ± 0.52	26.64 ± 0.44	56.05 ± 0.90	29.05 ± 0.52	n = 26	[SYA] Sysmex XE 5000
44.09 ± 0.72	39.87 ± 0.66	25.20 ± 0.44	56.89 ± 0.72	27.48 ± 0.55	n = 19	[SYC] Sysmex XN-series
43.83 ± 0.41	40.10 ± 0.36	26.37 ± 0.34	55.73 ± 1.04	28.77 ± 0.14	n = 3	[SYG] Sysmex POCi
43.18 ± 0.63	39.63 ± 0.42	26.28 ± 0.32	55.19 ± 0.70	28.97 ± 0.30	n = 20	[SYI] Sysmex XT-2000i,XT-1800i
43.03 ± 0.43	39.44 ± 0.60	25.32 ± 0.32	53.80 ± 0.62	27.83 ± 0.34	n = 6	[SYL] Sysmex XE 2100C
41.96 ± 0.39	39.07 ± 0.23	25.24 ± 0.10	52.45 ± 0.27	27.62 ± 0.24	n = 3	[SYN] Sysmex XE 2100DC
44.26 ± 0.65	40.71 ± 0.59	26.72 ± 0.48	56.30 ± 0.89	29.23 ± 0.44	n = 20	[SYO] Sysmex XE2100
44.16 ± 0.76	40.10 ± 0.50	26.24 ± 0.48	56.51 ± 0.88	28.73 ± 0.48	n = 34	[SYP] Sysmex XS-1000i,XS-1000iAL
44.38 ± 0.54	40.85 ± 0.51	26.87 ± 0.38	56.60 ± 0.90	29.43 ± 0.15	n = 7	[SYQ] Sysmex XE 2100D(Blood Center)
43.42 ± 0.42	39.95 ± 0.50	26.54 ± 0.44	55.33 ± 0.51	29.17 ± 0.52	n = 18	[SYV] Sysmex XT 4000i

Summary of Participant Responses

Mean ± One Standard Deviation

Platelet Count (x 10<sup>9</sup>/L)

Specimen: B11	Specimen: B12	Specimen: B13	Specimen: B14	Specimen: B15	Number	[Code] Instrument or Reagent System
571.2 ± 31.24	234.9 ± 14.95	373.7 ± 20.98	289.6 ± 18.78	84.0 ± 5.61	n = 416	[---] All Methods & Instruments
<b>&lt;Instruments&gt;</b>						
596.9 ± 35.22	237.6 ± 15.11	378.2 ± 21.77	306.9 ± 28.76	80.3 ± 6.70	n = 5	[ABG] Abbott Cell Dyn 1700
601.7 ± 46.54	270.8 ± 9.60	392.2 ± 13.15	342.4 ± 25.97	122.3 ± 4.96	n = 3	[ABK] Abbott Cell Dyn 3200
609.1 ± 22.51	255.0 ± 11.42	399.5 ± 14.61	312.6 ± 11.91	92.9 ± 4.63	n = 11	[ABM] Abbott Cell Dyn 3700
560.2 ± 16.78	248.4 ± 7.46	376.3 ± 12.47	303.2 ± 7.61	108.7 ± 3.40	n = 11	[ABS] Abbott Cell Dyn Sapphire
612.0 ± 18.52	273.5 ± 14.48	388.7 ± 16.65	350.7 ± 20.22	121.8 ± 9.01	n = 17	[ABT] Abbott Cell Dyn Ruby
608.5 ± 30.98	254.9 ± 20.43	406.3 ± 9.49	299.1 ± 7.95	102.1 ± 10.81	n = 3	[ABU] Abbott Cell Dyn Emerald
555.6 ± 19.30	229.1 ± 13.80	374.5 ± 13.78	283.7 ± 13.42	82.7 ± 5.38	n = 9	[BTD] Siemens Advia 120
568.3 ± 32.96	231.3 ± 15.72	377.8 ± 24.44	289.0 ± 17.78	86.1 ± 5.98	n = 32	[BTE] Siemens Advia 2120
570.6 ± 16.15	234.2 ± 6.60	371.3 ± 11.10	292.8 ± 8.71	84.8 ± 2.98	n = 59	[CUL] Coulter UniCel DxH 600,800
590.9 ± 19.77	250.8 ± 4.07	405.3 ± 4.63	306.0 ± 3.37	92.5 ± 4.27	n = 5	[CUS] Coulter ACT 5 diff
577.7 ± 26.26	236.7 ± 11.62	371.0 ± 19.22	295.8 ± 15.07	83.9 ± 7.70	n = 18	[CUT] Coulter ACT series,not ACT5 diff
549.9 ± 27.72	228.0 ± 13.70	374.5 ± 13.03	280.9 ± 16.49	86.4 ± 3.96	n = 7	[CUW] Coulter HMX
564.5 ± 13.41	235.8 ± 4.98	373.2 ± 12.04	286.4 ± 9.25	86.6 ± 2.50	n = 31	[CUX] Coulter LH750,755
560.8 ± 13.19	234.0 ± 2.86	372.5 ± 5.87	287.3 ± 9.52	86.5 ± 2.46	n = 15	[CUY] Coulter LH 780
579.2 ± 29.57	228.4 ± 12.33	370.7 ± 21.41	277.3 ± 15.36	83.1 ± 2.55	n = 16	[CUZ] Coulter LH500
514.4 ± 9.30	218.7 ± 4.96	352.0 ± 0.90	260.9 ± 2.86	82.3 ± 3.16	n = 3	[MEB] Medonic M-series
573.3 ± 20.86	244.5 ± 9.07	388.9 ± 7.27	291.7 ± 5.77	84.8 ± 2.68	n = 4	[ROB] ABX Pentra series
583.0 ± 12.65	247.5 ± 2.74	405.6 ± 18.87	288.5 ± 9.94	89.6 ± 5.58	n = 3	[ROC] ABX Micro
514.3 ± 21.29	210.0 ± 7.22	342.5 ± 9.02	256.0 ± 12.09	77.4 ± 2.98	n = 26	[SYA] Sysmex XE 5000
572.9 ± 10.62	230.1 ± 6.61	347.8 ± 8.85	296.0 ± 9.72	77.5 ± 3.82	n = 19	[SYC] Sysmex XN-series
587.5 ± 8.26	235.6 ± 4.72	373.7 ± 1.37	295.6 ± 7.08	79.0 ± 0.90	n = 3	[SYG] Sysmex POChi
587.6 ± 19.73	243.0 ± 7.46	386.1 ± 12.23	299.2 ± 7.73	85.5 ± 3.67	n = 20	[SYI] Sysmex XT-2000i,XT-1800i
562.9 ± 20.45	221.5 ± 10.55	359.5 ± 7.83	283.2 ± 9.59	81.0 ± 3.71	n = 6	[SYL] Sysmex XE 2100C
537.7 ± 6.76	223.3 ± 10.44	365.0 ± 11.72	277.5 ± 9.09	82.1 ± 4.38	n = 3	[SYN] Sysmex XE 2100DC
516.3 ± 19.74	214.4 ± 8.15	348.6 ± 11.11	259.9 ± 12.18	77.9 ± 3.47	n = 20	[SYO] Sysmex XE2100
578.7 ± 11.94	233.4 ± 5.57	379.9 ± 7.65	285.0 ± 7.85	81.7 ± 2.31	n = 34	[SYP] Sysmex XS-1000i,XS-1000iAL
615.3 ± 13.82	254.2 ± 5.08	418.0 ± 14.37	311.8 ± 14.99	93.6 ± 2.97	n = 7	[SYQ] Sysmex XE 2100D(Blood Center)
585.6 ± 13.51	246.1 ± 6.19	384.1 ± 10.40	294.6 ± 7.35	85.7 ± 2.06	n = 18	[SYV] Sysmex XT 4000i

Summary of Participant Responses  
 Mean ± One Standard Deviation

Prothrombin Time (seconds)

Specimen: C11	Specimen: C12	Specimen: C13	Specimen: C14	Specimen: C15	Number	[Code] Instrument or Reagent System
11.26 ± 0.70	11.27 ± 0.72	28.38 ± 3.69	48.61 ± 7.94	11.94 ± 0.96	n = 311	[---] All Methods & Instruments
<b>&lt;Instruments&gt;</b>						
10.85 ± 0.25	10.82 ± 0.24	24.71 ± 1.20	40.83 ± 2.50	10.79 ± 0.20	n = 18	[BEB] Siemens BCS,BCSXP
12.89 ± 0.25	12.94 ± 0.29	30.59 ± 0.78	53.11 ± 2.54	13.52 ± 0.37	n = 30	[DGC] Diagnostica Stago STA Compact
13.28 ± 0.37	13.40 ± 0.38	31.08 ± 0.45	52.32 ± 1.11	14.06 ± 0.44	n = 16	[DGD] Diagnostica Stago STA-R, STA-R Ev
11.85 ± 0.63	12.16 ± 0.92	20.80 ± 0.81	31.90 ± 2.45	12.19 ± 0.69	n = 11	[ILA] IL ACL(All except810,ELITE,EPRO,8
11.51 ± 0.38	11.39 ± 0.36	27.76 ± 7.55	46.78 ± 16.24	12.28 ± 0.67	n = 11	[ILC] IL ACL Futura/Advance
11.23 ± 0.29	11.26 ± 0.29	30.27 ± 0.96	52.60 ± 2.16	12.33 ± 0.24	n = 24	[ILD] IL ACL(ELITE,ELITE PRO,8/9/10000)
11.36 ± 0.31	11.36 ± 0.30	30.96 ± 1.10	54.77 ± 2.17	12.20 ± 0.32	n = 91	[ILE] IL ACL TOP Series (ACLTOP,ACLTOP
10.67 ± 0.26	10.61 ± 0.23	25.61 ± 1.20	42.96 ± 2.53	11.02 ± 0.24	n = 39	[SYW] Sysmex CA500/CA600 series
10.88 ± 0.27	10.87 ± 0.24	25.39 ± 1.41	42.25 ± 2.99	11.22 ± 0.31	n = 47	[SYX] Sysmex CA 1500
11.11 ± 0.31	11.18 ± 0.24	26.44 ± 1.68	44.59 ± 3.62	11.55 ± 0.33	n = 19	[SYY] Sysmex CA 7000
<b>&lt;Reagents&gt;</b>						
13.05 ± 0.37	13.11 ± 0.40	30.77 ± 0.73	52.87 ± 2.23	13.71 ± 0.47	n = 46	[TA3] STA Neoplastine CL+
10.83 ± 0.31	10.82 ± 0.31	25.52 ± 1.43	42.59 ± 3.10	11.13 ± 0.37	n = 125	[TD2] Siemens Innovin
11.56 ± 0.33	11.61 ± 0.46	20.66 ± 0.62	31.17 ± 1.25	11.98 ± 0.43	n = 17	[TJ2] HemosIL PT-Fibrinogen
11.34 ± 0.32	11.35 ± 0.30	30.90 ± 1.22	54.50 ± 2.49	12.26 ± 0.34	n = 118	[TJ8] HemosIL RecombiPlasTin 2G
<b>&lt;Reagent &amp; Instrument&gt;</b>						
12.89 ± 0.25	12.94 ± 0.29	30.59 ± 0.78	53.11 ± 2.54	13.52 ± 0.37	n = 30	[TA3]&[DGC] STA Neoplastin & Diagnostic
13.32 ± 0.33	13.44 ± 0.35	31.04 ± 0.44	52.20 ± 0.93	14.11 ± 0.38	n = 14	[TA3]&[DGD] STA Neoplastin & Diagnostic
10.85 ± 0.25	10.82 ± 0.24	24.71 ± 1.20	40.83 ± 2.50	10.79 ± 0.20	n = 18	[TD2]&[BEB] Siemens Innovi & Siemens BC
10.67 ± 0.26	10.61 ± 0.23	25.61 ± 1.20	42.96 ± 2.53	11.02 ± 0.24	n = 39	[TD2]&[SYW] Siemens Innovi & Sysmex CA5
10.88 ± 0.27	10.87 ± 0.24	25.39 ± 1.41	42.25 ± 2.99	11.22 ± 0.31	n = 47	[TD2]&[SYX] Siemens Innovi & Sysmex CA
11.11 ± 0.31	11.18 ± 0.24	26.44 ± 1.68	44.59 ± 3.62	11.55 ± 0.33	n = 19	[TD2]&[SYY] Siemens Innovi & Sysmex CA
11.69 ± 0.32	11.79 ± 0.36	20.80 ± 0.81	31.90 ± 2.45	12.03 ± 0.37	n = 9	[TJ2]&[ILA] HemosIL PT-Fib & IL ACL(All
11.28 ± 0.24	11.14 ± 0.25	20.44 ± 0.45	30.98 ± 0.66	11.60 ± 0.32	n = 5	[TJ2]&[ILC] HemosIL PT-Fib & IL ACL Fut
11.65 ± 0.19	11.87 ± 0.32	20.85 ± 0.45	30.87 ± 0.69	12.33 ± 0.14	n = 3	[TJ2]&[ILD] HemosIL PT-Fib & IL ACL(ELI
11.75 ± 0.32	11.61 ± 0.30	33.65 ± 1.39	59.31 ± 3.29	12.76 ± 0.21	n = 6	[TJ8]&[ILC] HemosIL Recomb & IL ACL Fut
11.18 ± 0.25	11.21 ± 0.24	30.27 ± 0.96	52.57 ± 2.16	12.33 ± 0.26	n = 21	[TJ8]&[ILD] HemosIL Recomb & IL ACL(ELI
11.36 ± 0.31	11.37 ± 0.30	30.96 ± 1.11	54.75 ± 2.18	12.20 ± 0.32	n = 90	[TJ8]&[ILE] HemosIL Recomb & IL ACL TOP

## Summary of Participant Responses

Mean ± One Standard Deviation

## INR (International Normalized Ratio)

Specimen: C11	Specimen: C12	Specimen: C13	Specimen: C14	Specimen: C15	Number	[Code] Instrument or Reagent System
1.025 ± 0.049	1.027 ± 0.049	2.649 ± 0.285	4.620 ± 0.860	1.082 ± 0.048	n = 315	[---] All Methods & Instruments
<b>&lt;Instruments&gt;</b>						
1.048 ± 0.055	1.059 ± 0.060	2.515 ± 0.133	4.075 ± 0.218	1.048 ± 0.054	n = 18	[BEB] Siemens BCS,BCSXP
1.003 ± 0.026	1.005 ± 0.031	3.064 ± 0.122	6.253 ± 0.410	1.064 ± 0.050	n = 30	[DGC] Diagnostica Stago STA Compact
1.011 ± 0.036	1.016 ± 0.032	3.023 ± 0.112	5.898 ± 0.321	1.097 ± 0.024	n = 16	[DGD] Diagnostica Stago STA-R, STA-R Ev
1.011 ± 0.098	1.016 ± 0.107	2.863 ± 0.279	6.051 ± 0.709	1.055 ± 0.098	n = 11	[ILA] IL ACL(All except810,ELITE,EPRO,8
1.010 ± 0.043	0.995 ± 0.055	2.857 ± 0.163	5.295 ± 0.542	1.087 ± 0.074	n = 11	[ILC] IL ACL Futura/Advance
0.992 ± 0.044	1.002 ± 0.034	2.771 ± 0.113	4.920 ± 0.322	1.103 ± 0.045	n = 24	[ILD] IL ACL(ELITE,ELITE PRO,8/9/10000)
1.020 ± 0.043	1.023 ± 0.046	2.725 ± 0.121	4.768 ± 0.286	1.095 ± 0.043	n = 94	[ILE] IL ACL TOP Series (ACLTOP,ACLTOP
1.045 ± 0.045	1.035 ± 0.039	2.423 ± 0.088	3.984 ± 0.154	1.076 ± 0.034	n = 38	[SYW] Sysmex CA500/CA600 series
1.040 ± 0.044	1.042 ± 0.043	2.338 ± 0.133	3.802 ± 0.253	1.070 ± 0.048	n = 48	[SYX] Sysmex CA 1500
1.066 ± 0.044	1.079 ± 0.034	2.453 ± 0.109	4.063 ± 0.220	1.100 ± 0.000	n = 19	[SYY] Sysmex CA 7000
<b>&lt;Reagents&gt;</b>						
1.003 ± 0.027	1.006 ± 0.030	3.048 ± 0.123	6.135 ± 0.407	1.074 ± 0.046	n = 45	[TA3] STA Neoplastine CL+
1.046 ± 0.047	1.046 ± 0.046	2.407 ± 0.135	3.946 ± 0.245	1.071 ± 0.045	n = 125	[TD2] Siemens Innovin
0.976 ± 0.069	0.979 ± 0.075	2.754 ± 0.183	5.752 ± 0.625	1.033 ± 0.076	n = 17	[TJ2] HemosIL PT-Fibrinogen
1.018 ± 0.043	1.020 ± 0.045	2.747 ± 0.128	4.809 ± 0.302	1.100 ± 0.041	n = 121	[TJ8] HemosIL RecombiPlasTin 2G
<b>&lt;Reagent &amp; Instrument&gt;</b>						
1.002 ± 0.025	1.003 ± 0.030	3.058 ± 0.121	6.250 ± 0.419	1.062 ± 0.050	n = 29	[TA3]&[DGC] STA Neoplastin & Diagnostic
1.009 ± 0.031	1.014 ± 0.029	3.035 ± 0.106	5.932 ± 0.294	1.099 ± 0.021	n = 14	[TA3]&[DGD] STA Neoplastin & Diagnostic
1.048 ± 0.055	1.059 ± 0.060	2.515 ± 0.133	4.075 ± 0.218	1.048 ± 0.054	n = 18	[TD2]&[BEB] Siemens Innovi & Siemens BC
1.044 ± 0.046	1.033 ± 0.038	2.423 ± 0.090	3.986 ± 0.157	1.075 ± 0.034	n = 37	[TD2]&[SYW] Siemens Innovi & Sysmex CA5
1.040 ± 0.044	1.042 ± 0.043	2.338 ± 0.133	3.802 ± 0.253	1.070 ± 0.048	n = 48	[TD2]&[SYX] Siemens Innovi & Sysmex CA
1.066 ± 0.044	1.079 ± 0.034	2.453 ± 0.109	4.063 ± 0.220	1.100 ± 0.000	n = 19	[TD2]&[SYY] Siemens Innovi & Sysmex CA
0.987 ± 0.080	0.986 ± 0.095	2.764 ± 0.199	5.960 ± 0.828	1.033 ± 0.090	n = 9	[TJ2]&[ILA] HemosIL PT-Fib & IL ACL(All
0.988 ± 0.049	0.962 ± 0.051	2.812 ± 0.183	5.778 ± 0.557	1.004 ± 0.019	n = 5	[TJ2]&[ILC] HemosIL PT-Fib & IL ACL Fut
0.926 ± 0.039	0.984 ± 0.056	2.659 ± 0.081	5.385 ± 0.442	1.031 ± 0.037	n = 3	[TJ2]&[ILD] HemosIL PT-Fib & IL ACL(ELI
1.023 ± 0.037	1.017 ± 0.042	2.919 ± 0.058	5.107 ± 0.083	1.122 ± 0.037	n = 6	[TJ8]&[ILC] HemosIL Recomb & IL ACL Fut
0.999 ± 0.036	1.003 ± 0.031	2.787 ± 0.107	4.884 ± 0.288	1.109 ± 0.037	n = 21	[TJ8]&[ILD] HemosIL Recomb & IL ACL(ELI
1.021 ± 0.043	1.024 ± 0.046	2.727 ± 0.119	4.772 ± 0.284	1.096 ± 0.042	n = 93	[TJ8]&[ILE] HemosIL Recomb & IL ACL TOP



## Summary of Participant Responses

Mean ± One Standard Deviation

## Act Partial Thromboplastin Time (seconds)

Specimen: C11	Specimen: C12	Specimen: C13	Specimen: C14	Specimen: C15	Number	[Code] Instrument or Reagent System
29.28 ± 3.80	29.39 ± 3.73	54.43 ± 7.04	79.99 ± 10.92	32.57 ± 2.59	n = 306	[---] All Methods & Instruments
<b>&lt;Instruments&gt;</b>						
25.08 ± 0.73	24.89 ± 0.79	46.47 ± 1.23	66.85 ± 2.81	27.32 ± 0.99	n = 19	[BEB] Siemens BCS,BCSXP
30.03 ± 1.14	30.42 ± 1.04	52.46 ± 2.36	76.18 ± 3.64	35.25 ± 1.38	n = 29	[DGC] Diagnostica Stago STA Compact
29.10 ± 0.48	29.30 ± 0.55	50.08 ± 1.16	72.54 ± 1.12	34.33 ± 0.47	n = 16	[DGD] Diagnostica Stago STA-R, STA-R Ev
27.72 ± 2.04	28.77 ± 2.30	56.07 ± 8.59	79.39 ± 10.95	31.72 ± 1.05	n = 9	[ILA] IL ACL(All except810,ELITE,EPRO,8
32.02 ± 1.66	32.32 ± 0.89	62.72 ± 2.18	94.87 ± 4.46	33.69 ± 1.04	n = 10	[ILC] IL ACL Futura/Advance
29.52 ± 1.52	29.86 ± 1.52	60.51 ± 6.71	89.24 ± 10.44	31.78 ± 0.76	n = 23	[ILD] IL ACL(ELITE,ELITE PRO,8/9/10000)
33.42 ± 1.04	33.17 ± 0.92	60.75 ± 1.47	90.34 ± 2.57	34.36 ± 0.99	n = 95	[ILE] IL ACL TOP Series (ACLTOP,ACLTOP
25.43 ± 0.53	25.40 ± 0.48	48.06 ± 1.23	71.62 ± 2.04	29.86 ± 0.80	n = 35	[SYW] Sysmex CA500/CA600 series
26.26 ± 0.66	26.27 ± 0.67	50.06 ± 1.11	73.25 ± 1.95	30.97 ± 1.03	n = 48	[SYX] Sysmex CA 1500
26.23 ± 0.93	26.34 ± 0.81	49.39 ± 0.58	72.10 ± 1.73	30.96 ± 1.32	n = 17	[SYY] Sysmex CA 7000
<b>&lt;Reagents&gt;</b>						
29.54 ± 0.95	29.88 ± 0.98	51.33 ± 2.11	74.25 ± 3.10	34.77 ± 1.11	n = 39	[AA2] Diagnostica Stago STA PTT-Auto
32.16 ± 2.77	32.06 ± 2.07	57.07 ± 4.38	81.19 ± 3.09	36.91 ± 2.69	n = 6	[AA3] Diagnostica Stago PTT-LA
26.46 ± 1.46	26.47 ± 1.21	53.20 ± 7.61	80.99 ± 14.93	31.36 ± 1.84	n = 4	[AD2] Siemens Actin
25.18 ± 0.79	25.48 ± 0.83	80.19 ± 1.99	128.53 ± 10.25	28.93 ± 1.58	n = 4	[AD3] Siemens Actin FS
25.85 ± 0.82	25.86 ± 0.89	48.95 ± 1.73	72.00 ± 2.69	30.25 ± 1.56	n = 111	[AD4] Siemens Actin FSL
26.74 ± 0.99	27.34 ± 0.98	48.87 ± 1.32	71.55 ± 2.34	32.04 ± 1.33	n = 14	[AJ3] HemosIL Test APTT-SP
32.94 ± 1.60	32.80 ± 1.32	61.12 ± 1.88	90.96 ± 3.39	33.99 ± 1.41	n = 122	[AO4] HemosIL SynthASil
<b>&lt;Reagent &amp; Instrument&gt;</b>						
29.83 ± 1.04	30.23 ± 0.92	52.10 ± 2.11	75.42 ± 3.17	35.07 ± 1.28	n = 24	[AA2]&[DGC] Diagnostica St & Diagnostic
29.10 ± 0.48	29.30 ± 0.55	50.08 ± 1.15	72.54 ± 1.11	34.33 ± 0.46	n = 14	[AA2]&[DGD] Diagnostica St & Diagnostic
31.34 ± 1.50	31.58 ± 1.15	56.02 ± 4.09	81.13 ± 0.57	36.39 ± 1.55	n = 5	[AA3]&[DGC] Diagnostica St & Diagnostic
26.06 ± 1.55	26.17 ± 1.30	52.20 ± 8.68	79.71 ± 17.43	31.43 ± 2.22	n = 3	[AD2]&[SYW] Siemens Actin & Sysmex CA5
25.47 ± 0.59	25.79 ± 0.44	81.04 ± 0.67	132.23 ± 9.68	29.51 ± 0.85	n = 3	[AD3]&[SYX] Siemens Actin & Sysmex CA
25.08 ± 0.73	24.89 ± 0.79	46.47 ± 1.23	66.85 ± 2.81	27.32 ± 0.99	n = 17	[AD4]&[BEB] Siemens Actin & Siemens BC
25.43 ± 0.50	25.40 ± 0.48	48.11 ± 1.26	71.69 ± 2.01	29.84 ± 0.76	n = 32	[AD4]&[SYW] Siemens Actin & Sysmex CA5
26.31 ± 0.63	26.31 ± 0.67	50.06 ± 1.11	73.24 ± 1.94	31.05 ± 0.98	n = 45	[AD4]&[SYX] Siemens Actin & Sysmex CA
26.23 ± 0.93	26.34 ± 0.81	49.39 ± 0.58	72.10 ± 1.73	30.96 ± 1.32	n = 17	[AD4]&[SYY] Siemens Actin & Sysmex CA
26.40 ± 0.40	27.07 ± 0.55	48.63 ± 0.46	71.52 ± 4.02	31.62 ± 1.07	n = 5	[AJ3]&[ILA] HemosIL Test A & IL ACL(All
27.43 ± 0.75	27.82 ± 0.52	49.39 ± 1.46	72.44 ± 1.65	32.05 ± 0.75	n = 6	[AJ3]&[ILD] HemosIL Test A & IL ACL(ELI
30.38 ± 0.69	30.83 ± 0.23	62.77 ± 2.12	92.67 ± 1.85	31.41 ± 0.29	n = 3	[AO4]&[ILA] HemosIL SynthA & IL ACL(All
32.21 ± 1.51	32.41 ± 0.91	62.52 ± 2.24	95.09 ± 4.60	33.70 ± 1.02	n = 8	[AO4]&[ILC] HemosIL SynthA & IL ACL Fut
30.13 ± 0.88	30.56 ± 0.80	63.39 ± 2.50	93.81 ± 4.28	31.68 ± 0.75	n = 17	[AO4]&[ILD] HemosIL SynthA & IL ACL(ELI
33.41 ± 1.02	33.16 ± 0.93	60.73 ± 1.46	90.31 ± 2.58	34.38 ± 0.99	n = 93	[AO4]&[ILE] HemosIL SynthA & IL ACL TOP

Summary of Participant Responses  
Mean ± One Standard Deviation

Fibrinogen (mg/dL)

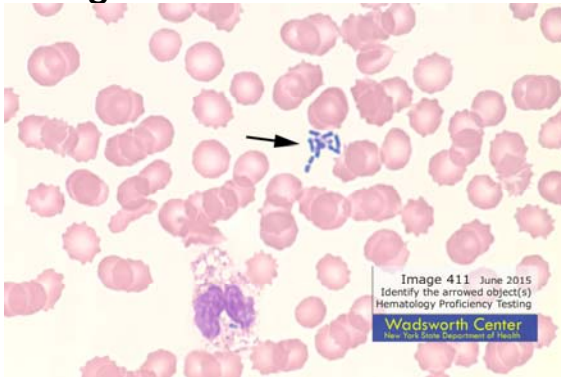
Specimen: C11	Specimen: C12	Specimen: C13	Specimen: C14	Specimen: C15	Number	[Code] Instrument or Reagent System
306.7 ± 24.59	306.7 ± 24.63	286.8 ± 25.66	282.3 ± 22.62	521.4 ± 77.96	n = 203	[---] All Methods & Instruments
<b>&lt;Instruments&gt;</b>						
316.5 ± 21.16	318.6 ± 22.05	319.9 ± 20.40	315.1 ± 16.98	544.4 ± 27.22	n = 19	[BEB] Siemens BCS,BCSXP
317.6 ± 19.00	315.9 ± 15.77	294.7 ± 12.66	288.2 ± 12.20	569.6 ± 20.10	n = 27	[DGC] Diagnostica Stago STA Compact
305.2 ± 9.99	306.5 ± 11.27	281.7 ± 14.24	278.9 ± 10.18	549.9 ± 32.53	n = 15	[DGD] Diagnostica Stago STA-R, STA-R Ev
286.0 ± 25.84	281.1 ± 26.57	355.5 ± 15.75	388.4 ± 19.30	445.6 ± 31.46	n = 5	[ILC] IL ACL Futura/Advance
344.5 ± 9.91	338.9 ± 27.79	295.3 ± 10.18	285.6 ± 20.84	638.9 ± 115.73	n = 6	[ILD] IL ACL(ELITE,ELITE PRO,8/9/10000)
314.8 ± 21.62	315.8 ± 20.97	290.2 ± 20.14	287.6 ± 17.38	552.8 ± 90.44	n = 74	[ILE] IL ACL TOP Series (ACLTOP,ACLTOP
289.6 ± 16.68	297.0 ± 12.32	291.2 ± 14.87	268.8 ± 14.28	507.6 ± 26.62	n = 4	[SYW] Sysmex CA500/CA600 series
285.7 ± 13.99	281.4 ± 16.39	262.6 ± 18.39	258.9 ± 16.11	440.0 ± 31.77	n = 33	[SYX] Sysmex CA 1500
285.5 ± 14.13	289.2 ± 9.81	268.2 ± 8.99	267.9 ± 8.45	462.7 ± 20.50	n = 15	[SYY] Sysmex CA 7000
<b>&lt;Reagents&gt;</b>						
325.2 ± 31.11	321.6 ± 39.65	362.0 ± 46.39	382.2 ± 21.37	489.2 ± 46.32	n = 6	[TJ2] HemosIL PT-Fibrinogen
322.2 ± 16.38	322.9 ± 15.57	299.9 ± 16.33	292.3 ± 13.35	488.4 ± 29.57	n = 39	[TJ8] HemosIL RecombiPlasTin 2G
312.1 ± 17.03	312.1 ± 14.79	290.0 ± 14.81	284.6 ± 12.38	563.5 ± 26.47	n = 42	[FA4] Stago STA-Fibrinogen 5
321.0 ± 20.58	322.0 ± 21.42	324.6 ± 18.27	318.9 ± 13.28	549.5 ± 17.40	n = 16	[FB2] Siemens Multifibren U
286.6 ± 14.15	286.0 ± 15.47	267.2 ± 18.74	263.7 ± 15.68	452.8 ± 35.18	n = 55	[FD2] Siemens Fibrinogen Determination
316.2 ± 24.95	313.1 ± 19.91	285.3 ± 19.56	282.6 ± 20.59	628.1 ± 77.73	n = 22	[FJ2] HemosIL Fibrinogen C,XL
301.0 ± 23.67	303.2 ± 29.23	279.7 ± 19.52	284.0 ± 16.34	643.1 ± 67.70	n = 20	[FO3] HemosIL QFA(bovine)
<b>&lt;Reagent &amp; Instrument&gt;</b>						
268.8 ± 4.11	263.1 ± 2.05	350.3 ± 10.37	399.3 ± 12.15	427.2 ± 8.71	n = 3	[TJ8]&[ILC] HemosIL Recomb & IL ACL Fut
323.3 ± 13.97	323.6 ± 13.85	298.5 ± 14.00	292.3 ± 13.33	492.1 ± 25.10	n = 36	[TJ8]&[ILE] HemosIL Recomb & IL ACL TOP
317.6 ± 19.00	315.9 ± 15.77	294.7 ± 12.66	288.2 ± 12.20	569.6 ± 20.10	n = 27	[FA4]&[DGC] Stago STA-Fibr & Diagnostic
305.2 ± 9.99	306.5 ± 11.27	281.7 ± 14.24	278.9 ± 10.18	549.9 ± 32.53	n = 15	[FA4]&[DGD] Stago STA-Fibr & Diagnostic
321.0 ± 20.58	322.0 ± 21.42	324.6 ± 18.27	318.9 ± 13.28	549.5 ± 17.40	n = 16	[FB2]&[BEB] Siemens Multif & Siemens BC
296.3 ± 6.83	300.8 ± 18.32	296.5 ± 8.61	289.5 ± 9.83	469.3 ± 42.70	n = 3	[FD2]&[BEB] Siemens Fibrin & Siemens BC
289.6 ± 16.68	297.0 ± 12.32	291.2 ± 14.87	268.8 ± 14.28	507.6 ± 26.62	n = 4	[FD2]&[SYW] Siemens Fibrin & Sysmex CA5
285.7 ± 13.99	281.4 ± 16.39	262.6 ± 18.39	258.9 ± 16.11	440.0 ± 31.77	n = 33	[FD2]&[SYX] Siemens Fibrin & Sysmex CA
285.5 ± 14.13	289.2 ± 9.81	268.2 ± 8.99	267.9 ± 8.45	462.7 ± 20.50	n = 15	[FD2]&[SYY] Siemens Fibrin & Sysmex CA
341.6 ± 8.23	333.2 ± 18.60	295.3 ± 10.11	285.5 ± 19.59	672.4 ± 68.64	n = 5	[FJ2]&[ILD] HemosIL Fibrin & IL ACL(ELI
307.5 ± 21.27	308.3 ± 15.35	280.9 ± 21.73	281.8 ± 20.58	615.6 ± 75.37	n = 17	[FJ2]&[ILE] HemosIL Fibrin & IL ACL TOP
301.0 ± 23.67	303.2 ± 29.23	279.7 ± 19.52	284.0 ± 16.34	643.1 ± 67.70	n = 20	[FO3]&[ILE] HemosIL QFA(bo & IL ACL TOP

# NEW YORK STATE HEMATOLOGY PROFICIENCY TEST PROGRAM

Test event of June 8, 2015

Images on the Hematology and Clinical Chemistry web page: <http://www.wadsworth.org/chemheme/cellIPT> were used to test all laboratories that perform manual white cell differentials. A summary of responses appear below, acceptable responses are shown in shaded areas.

## Image 411

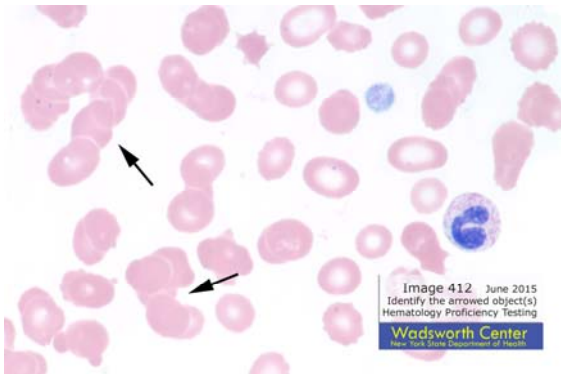


Number of Responses	Percent of Laboratories	Cell type or finding
348	98.3%	Bacteria
6	1.7%	Yeast-Fungus

The arrowed extracellular objects in Image 411 are small chains of rod shaped bacteria as correctly reported by 98.3% of the participants. The image was taken from the peripheral blood of an individual with *Klebsiella* infection. *Klebsiella* is a Gram-negative bacteria causing infections including pneumonia and meningitis.

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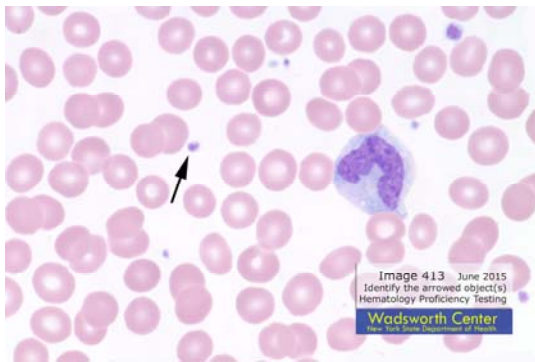
## Image 412



Number of Responses	Percent of Laboratories	Cell type or finding
354	100%	Rouleaux

The arrowed red blood cells in Image 412 display the stacked appearance known as rouleaux. Increased amounts of plasma proteins, as in this case of multiple myeloma, is a cause of true rouleaux. True rouleaux is observed in the thin (optimal viewing area) of the smear and, in addition to multiple myeloma, is observed in chronic infections and chronic inflammatory conditions. Rouleaux-like appearance of red blood cells in the thicker portion of the smear where the cells grossly overlap is common and considered artifact.

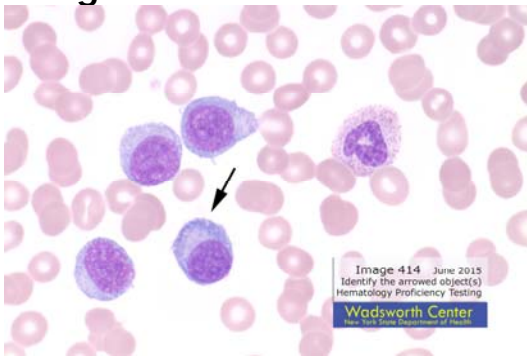
## Image 413



Number of Responses	Percent of Laboratories	Cell type or finding
353	99.7%	Platelet
1	0.3%	Giant platelet

The arrowed finding in Image 413 is blue-gray and contains purplish azurophilic granules and was identified by 353 participants as a normal platelet. The image was taken from an individual with a normal platelet count (205,000). Increased number of platelets signifies a variety of conditions including infection, inflammation, trauma, surgery, malignancy and anemia (iron deficiency and hemolytic). Decreased concentration of platelets is associated with acquired conditions including B12 deficiency, folate deficiency, idiopathic thrombocytopenic purpura, disseminated intravascular coagulation, radiation therapy and also in hereditary conditions like May-Hegglin anomaly, Bernard-Soulier syndrome, and Fanconi syndrome.

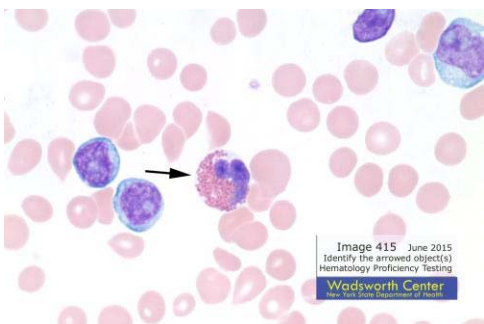
## Image 414



Number of Responses	Percent of Laboratories	Cell type or finding
320	90.4%	Plasma cell
20	5.6%	Blast cell, not classified
9	2.5%	Reactive/Atypical lymphocyte
3	0.8%	Promyelocyte
2	0.6%	Normal lymphocyte

The shape of the arrowed white blood cell in Image 414 is oval and contains a round, eccentric nucleus, moderately coarse chromatin and visible parachromatin clearing, or "hof". These characteristics best describe a plasma cell as the majority (90.4%) of participants reported. In comparison, the two cells above the arrowed image and the cell to the left of the arrowed image are larger in overall size with a high nucleus to cytoplasm (N:C) ratio, finer chromatin and distinct nucleoli favoring those cells as likely plasma cell precursors.

## Image 415



Number of Responses	Percent of Laboratories	Cell type or finding
353	99.7%	Eosinophil
1	0.3%	Basophil

The arrowed white blood cell in Image 415 is an eosinophil as correctly identified by nearly all participants. The image was obtained from a case of acute leukemia where the presence of eosinophils would not be unexpected.