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*Commissioner*

Dennis P. Whalen  
*Executive Deputy Commissioner*

October 12, 2000

## ERYTHROCYTE PROTOPORPHYRIN PROFICIENCY TEST

### SURVEY #3, 2000

Dear Laboratory Director:

Results of the third proficiency test (PT) event for **Erythrocyte Protoporphyrin (EP)** have been evaluated and graded. The test materials were prepared from whole goat blood. Five animals were dosed with lead acetate prior to the test to generate elevated EP levels. On August 29, 2000, approximately 400-mL of blood were drawn from each animal into separate plastic blood bags containing 750 mg K<sub>2</sub>EDTA. Each animal yielded a separate pool with EP levels ranging from 29 µg/dL to 132 µg/dL. Aliquots of whole blood were transferred into additive-free evacuated glass tubes and shipped to extraction participants on August 30, 2000. The remaining blood was prepared for hematofluorometer (HF) participants with EP levels ranging from 32 µg/dL to 145 µg/dL. To eliminate fluorescent artifacts, erythrocytes were separated from plasma, washed with normal saline and resuspended in a citrate-glycerol solution. Aliquots of the blood-product were transferred into additive-free evacuated glass tubes and shipped to all HF participants on September 13, 2000.

Each laboratory will receive an individual performance summary for the last three PT events under separate cover. To pass the PT for EP, a laboratory must achieve a minimum score of 80% (4 out of 5 correct) on two consecutive testing events, or two out of three consecutive testing events.

### EXTRACTION METHOD

Target values are calculated using results from all participants (excluding outliers). **The next PT event for the extraction method is scheduled to be shipped February 21, 2001.** Contact the State laboratory staff at (518) 473-0452 if the PT materials have not arrived within five days of the scheduled mailout date.

### HEMATOFLUOROMETRY

Target values for AVIV instruments are calculated using results from 11 referee laboratories and are given as µg/dL, assumed hct 35. Target values for Helena Protofluor-Z instruments are calculated using results from all participants (excluding outliers) and are given as µmol ZPP/mol heme. **The next PT event for the hematofluorometer method is scheduled to be shipped March 7, 2001.** Contact the State laboratory staff at (518) 473-0452 if the PT materials have not arrived within five days of the scheduled mailout date.

Thank you for your participation.

Sincerely,

Patrick J. Parsons, Ph.D.  
Section Head, Erythrocyte Protoporphyrin Proficiency Testing Program

New York State Department of Health

HF PROFICIENCY TEST RESULTS, SURVEY #3

Testing year 2000, dated 12 October 2000

PERFORMANCE OF PARTICIPATING LABORATORIES

LAB CODE	METHOD	RESULTS (µg/dL whole blood)					NORMALIZED MEAN	
		HF00	-11	-12	-13	-14		-15
		Target values:	32	145	109	50	49	
104	Aviv Hemat.		32	145	109	53	50	1.03
106	Aviv Hemat.		32	147	109	51	49	1.02
108	Aviv Hemat.		32	154	116	52	51	1.05
109	Aviv Hemat.		31	144	110	53	50	1.02
110	Aviv Hemat.		32	157	114	51	51	1.05
112	Aviv Hemat.		31	144	108	50	49	1.00
119	Aviv Hemat.		28	145	103	47	48	0.96
123	Aviv Hemat.		37	158	125	54	52	1.12
125	Aviv Hemat.		34	>125	120	54	54	1.05
126	Aviv Hemat.		30	142	104	48	46	0.97
131	Aviv Hemat.		31	148	108	51	48	1.01
132	Aviv Hemat.		32	139	105	49	48	0.99
147	Aviv Hemat.		28	129	101	46	43	0.91
155	Aviv Hemat.		35	146	112	53	53	1.05
156	Aviv Hemat.		34	148	115	50	45	1.02
158	Aviv Hemat.		34	146	110	50	51	1.04
159	Aviv Hemat.		31	155	116	51	48	1.03
160	Aviv Hemat.		33	158	114	53	53	1.07
164	Aviv Hemat.		26	144	105	40 *	44	0.90
197	Aviv Hemat.		33	149	112	45	48	1.01
199	Aviv Hemat.		34	151	114	53	54	1.08
221	Aviv Hemat.		30	142	105	47	46	0.96
247	Aviv Hemat.		34	135	105	54	52	1.03
251	Aviv Hemat.		32	145	104	50	48	1.00
255	Aviv Hemat.		30	143	107	50	48	0.99
272	Aviv Hemat.		36	148	112	54	52	1.08
305	Aviv Hemat.		34	153	118	53	52	1.08
333	Aviv Hemat.		29	150	109	48	47	0.98
344	Aviv Hemat.		32	155	116	53	52	1.06

Percent satisfactory results for all participants: 99.3%

## STATISTICAL SUMMARY

HF Proficiency Test #3. Testing Year 2000. Report date: 12 October 2000

LAB CODE	METHOD	Reference Laboratory Results RESULTS ( $\mu\text{g/dL}$ whole blood)				
		HF00-11	-12	-13	-14	-15
104	Aviv Hemat.	32	145	109	53	50
106	Aviv Hemat.	32	147	109	51	49
109	Aviv Hemat.	31	144	110	53	50
110	Aviv Hemat.	32	157	114	51	51
119	Aviv Hemat.	28	145	103	47	48
126	Aviv Hemat.	30	142	104	48	46
132	Aviv Hemat.	32	139	105	49	48
147	Aviv Hemat.	28	129	101	46	43
155	Aviv Hemat.	35	146	112	53	53
156	Aviv Hemat.	34	148	115	50	45
199	Aviv Hemat.	34	151	114	53	54
	Number of sample measurements:	11	11	11	11	11
	Mean (target value):	32	145	109	50	49
	Standard deviation:	2.3	7.0	4.9	2.6	3.3
	RSD (%):	7.2	4.9	4.5	5.1	6.8
	Acceptable range:					
	Upper limit	38	167	125	58	56
	Lower limit	26	123	93	43	42

## SUMMARY OF RESULTS

	Number, mean and relative standard deviation for each sample														
	HF00 -11			-12			-13			-14			-15		
	##	Mn	RSD	##	Mn	RSD	##	Mn	RSD	##	Mn	RSD	##	Mn	RSD
Referee	11	32	7	11	145	5	11	109	4	11	50	5	11	49	7
Non referee	18	32	8	18	147	6	18	112	5	18	51	7	18	50	6
All laboratories	29	32	8	29	146	5	29	111	5	29	50	6	29	49	6