

**Supplementary Table S1.** Concordance between blinded, randomized duplicates and average serum cytokine limits of detection

Study	Cytokine	Spearman Correlation		Average limit of detection (pg/ml)	Samples below the limit of detection N (%)
		Within plate correlation coefficient	Between plate correlation coefficient		
NCI-MD	IL-1 $\beta$	0.49	<0.0001	0.23	202 (24.8)
	IL-4	0.41	0.0003	0.74	210 (25.7)
	IL-5	0.78	<0.0001	0.35	157 (19.2)
	IL-6	0.99	<0.0001	0.40	2 (0.2)
	IL-8	0.87	<0.0001	0.12	0 (0.0)
	IL-10	0.77	<0.0001	6.84	82 (10.0)
	IL-12	0.79	<0.0001	1.50	81 (9.9)
	GMCSF	0.68	<0.0001	1.02	179 (21.9)
	IFN $\gamma$	0.60	<0.0001	1.04	288 (35.3)
	TNF $\alpha$	0.80	<0.0001	0.30	2 (0.2)
PLCO	IL-1 $\beta$	0.56	<0.0001	0.29	3 (0.3)
	IL-6	0.96	<0.0001	0.31	0 (0)
	IL-8	0.85	<0.0001	0.14	0 (0)
	TNF $\alpha$	0.83	<0.0001	0.30	0 (0)
WSU	IL-1 $\beta$	0.53	<0.0001	0.26	0 (0)
	IL-6	0.99	<0.0001	0.38	0 (0)
	IL-8	0.81	0.0002	0.17	0 (0)
	IL-10	0.80	<0.0001	6.61	43 (7.6)
	TNF $\alpha$	0.85	<0.0001	0.28	0 (0)

Abbreviations: NCI-MD, National Cancer Institute-Maryland; WSU, Wayne State University; PLCO, Prostate, Lung, Colorectal and Ovarian cancer screening trial; IL, interleukin; GMCSF, granulocyte-macrophage colony-stimulating factor; IFN, interferon; TNF, tumor necrosis factor.