

## **Supplemental Material – Table of Contents**

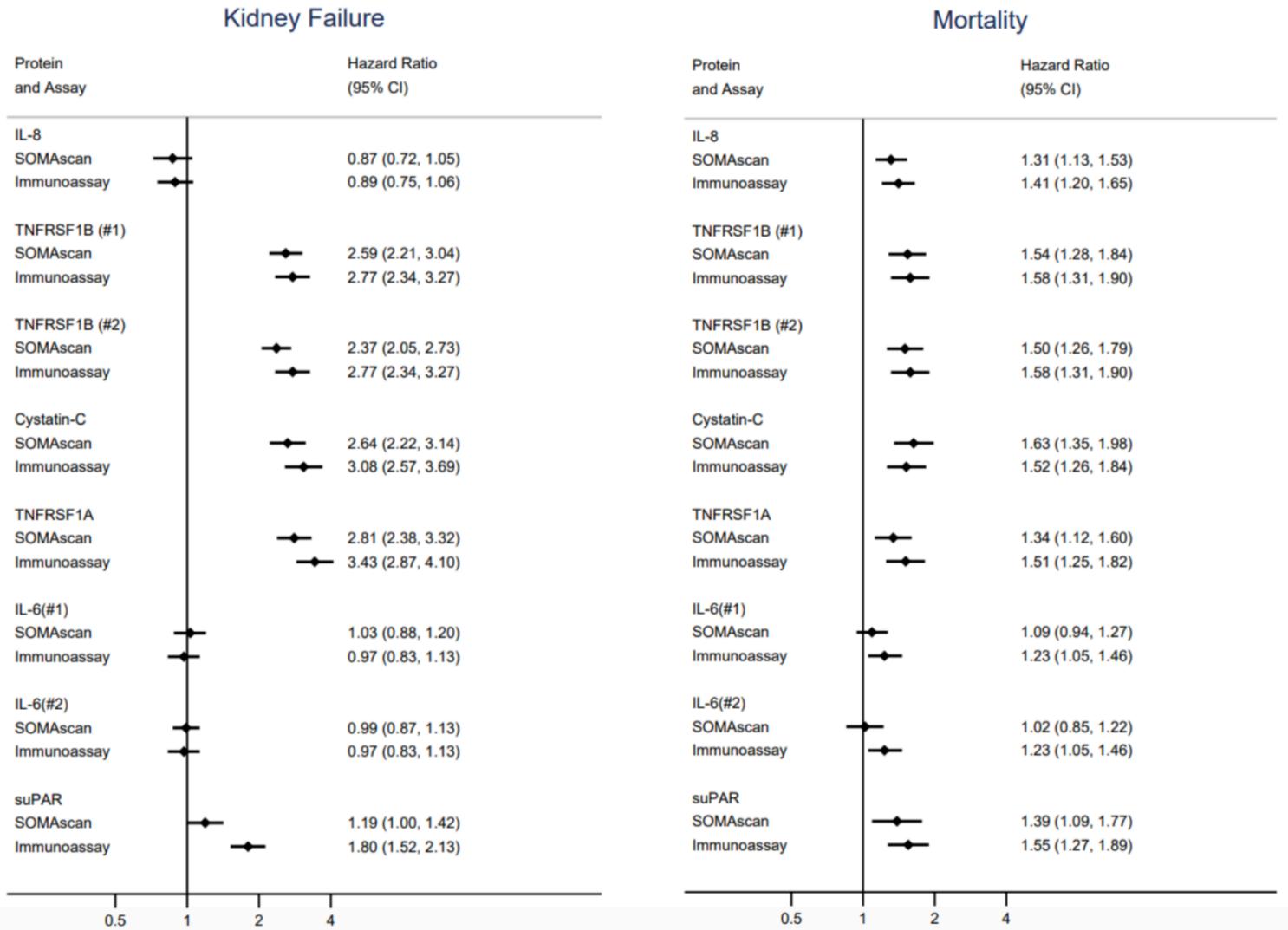
1. Supplemental Table 1. Analysis Results for Uncorrelated Proteins.
2. Supplemental Table 2. Harrell's C statistics for the clinical model with or without biomarkers for prediction of kidney failure and mortality.
3. Supplemental Figure 1. Forest plots of biomarkers and risk of kidney failure and mortality.

	Correlations between assays		Correlations with measured GFR	Associations with Kidney Failure			Associations with Mortality			
	r	$r_s$		r	HR	P	LRT P*	HR	P	LRT P*
<b>IL-10 (#1)</b>										
Immunoassay			0.02	1.20 (1.06-1.36)	0.005	0.008	1.19 (1.00-1.42)	0.06	0.07	
SOMAscan	0.08	0.09	-0.04	1.04 (0.89 -1.22)	0.62	0.89	1.03 (0.87-1.23)	0.71	0.84	
<b>IL-10 (#2)</b>										
Immunoassay			0.02	1.20 (1.06-1.36)	0.005	0.008	1.19 (1.00-1.42)	0.06	0.06	
SOMAscan	0.11	-0.02	-0.06	1.03 (0.89-1.20)	0.68	0.75	0.98 (0.82-1.18)	0.85	0.73	
<b>IFN-γ (#1)</b>										
Immunoassay			-0.03	1.11 (0.96-1.27)	0.15	0.17	1.11 (0.92-1.34)	0.30	0.25	
SOMAscan	0.07	0.06	0.05	1.01 (0.87-1.18)	0.86	0.97	0.87 (0.71-1.07)	0.19	0.14	
<b>IFN-γ (#2)</b>										
Immunoassay			-0.03	1.11 (0.96-1.27)	0.15	0.15	1.11 (0.92-1.34)	0.30	0.35	
SOMAscan	-0.05	-0.06	0.20	0.77 (0.65-0.91)	0.002	0.002	0.91 (0.76-1.08)	0.29	0.31	
<b>TNF-α (#1)</b>										
Immunoassay			-0.30	1.46 (1.27-1.68)	<0.001	<0.001	1.71 (1.42-2.06)	<0.001	<0.001	
SOMAscan	0.02	-0.03	-0.11	1.11 (0.95-1.28)	0.19	0.31	1.09 (0.92-1.29)	0.29	0.39	
<b>TNF-α (#2)</b>										
Immunoassay			-0.30	1.46 (1.27-1.68)	<0.001	<0.001	1.71 (1.42-2.06)	<0.001	<0.001	
SOMAscan	-0.03	-0.01	0.19	0.83 (0.69-1.00)	0.05	0.05	0.82 (0.65-1.02)	0.07	0.05	
<b>SUR</b>					<0.001			<0.001		

**Supplemental Table 1. Analysis Results for Uncorrelated Proteins.** Pearson (r) and Spearman ( $r_s$ ) correlation coefficients of protein levels measured via immunoassays vs. SOMAscan. Pearson correlation coefficients of protein measurements with measured GFR. Adjusted hazard ratios (per 2-fold higher baseline level) for protein measurements with incident kidney failure/mortality. Seemingly unrelated regression (SUR) comparing strength of association between protein measurements and kidney failure/mortality. Likelihood ratio test (LRT) comparing models using both assays vs. single assay.

	Kidney Failure		P	Death		P
	Harrell's C Statistic	Difference Between Assays		Harrell's C Statistic	Difference Between Assays	
<b>Clinical Model (CM)</b>						
Adjusted for age, sex, and randomized treatment groups	0.65 (0.61 - 0.70)	-	-	0.62 (0.57 - 0.67)	-	-
<b>IL-8</b>						
CM + Immunoassay	0.66 (0.61 - 0.70)			<b>0.66 (0.61 - 0.71)</b>		
CM + SOMA	0.66 (0.62 - 0.70)			<b>0.65 (0.60 - 0.70)</b>		<b>0.03</b>
<b>TNFRSF1B (#1)</b>						
CM + Immunoassay	<b>0.80 (0.77 - 0.83)</b>			<b>0.67 (0.62 - 0.72)</b>		
CM + SOMA	<b>0.80 (0.77 - 0.83)</b>			<b>0.67 (0.62 - 0.73)</b>	-0.004 (-0.02 - 0.01)	0.54
<b>TNFRSF1B (#2)</b>						
CM + Immunoassay	<b>0.80 (0.77 - 0.83)</b>			<b>0.67 (0.62 - 0.72)</b>		
CM + SOMA	<b>0.80 (0.76 - 0.83)</b>			<b>0.67 (0.62 - 0.72)</b>	0.000 (-0.01 - 0.01)	0.95
<b>Cystatin C</b>						
CM + Immunoassay	<b>0.81 (0.78 - 0.84)</b>			<b>0.66 (0.60 - 0.71)</b>		
CM + SOMA	<b>0.79 (0.76 - 0.82)</b>			<b>0.67 (0.62 - 0.73)</b>	-0.02 (-0.04 - 0.004)	0.12
<b>TNFRSF1A</b>						
CM + Immunoassay	<b>0.83 (0.80 - 0.86)</b>			<b>0.66 (0.61 - 0.71)</b>		
CM + SOMA	<b>0.81 (0.78 - 0.84)</b>			<b>0.65 (0.60 - 0.71)</b>	0.01 (-0.01 - 0.02)	0.52
<b>IL-6 (#1)</b>						
CM + Immunoassay	0.65 (0.61 - 0.70)			0.63 (0.58 - 0.69)		
CM + SOMA	0.65 (0.61 - 0.70)	-0.001 (-0.01 - 0.005)	0.74	0.62 (0.57 - 0.67)	0.01 (-0.01 - 0.03)	0.20
<b>IL-6 (#2)</b>						
CM + Immunoassay	0.65 (0.61 - 0.70)			0.63 (0.58 - 0.69)		
CM + SOMA	0.65 (0.61 - 0.70)	-0.000 (-0.003 - 0.003)	0.81	0.62 (0.57 - 0.67)	0.02 (-0.01 - 0.04)	0.16
<b>suPAR</b>						
CM + Immunoassay	<b>0.73 (0.69 - 0.76)</b>			<b>0.65 (0.60 - 0.70)</b>		
CM + SOMA	0.66 (0.62 - 0.70)	<b>0.07 (0.03 - 0.11)</b>	<0.001	0.64 (0.58 - 0.69)	0.02 (-0.03 - 0.06)	0.42
<b>IL-10 (#1)</b>						
CM + Immunoassay	0.67 (0.62 - 0.71)			0.63 (0.58 - 0.68)		
CM + SOMA	0.66 (0.61 - 0.70)	0.01 (-0.01 - 0.03)	0.21	0.62 (0.57 - 0.67)	0.01 (-0.01 - 0.03)	0.36
<b>IL-10 (#2)</b>						
CM + Immunoassay	0.67 (0.62 - 0.71)			0.63 (0.58 - 0.68)		
CM + SOMA	0.66 (0.61 - 0.70)	0.01 (-0.01 - 0.03)	0.20	0.62 (0.57 - 0.67)	0.01 (-0.01 - 0.03)	0.30
<b>IFN-γ (#1)</b>						
CM + Immunoassay	0.66 (0.62 - 0.70)			0.62 (0.57 - 0.67)		
CM + SOMA	0.65 (0.61 - 0.70)	0.005 (-0.003 - 0.01)	0.22	0.62 (0.57 - 0.67)	-0.002 (-0.02 - 0.02)	0.79
<b>IFN-γ (#2)</b>						
CM + Immunoassay	0.66 (0.62 - 0.70)			0.62 (0.57 - 0.67)		
CM + SOMA	0.67 (0.63 - 0.71)	-0.01 (-0.03 - 0.01)	0.38	0.62 (0.57 - 0.67)	-0.000 (-0.02 - 0.02)	0.96
<b>TNF-α (#1)</b>						
CM + Immunoassay	<b>0.69 (0.65 - 0.73)</b>			<b>0.68 (0.63 - 0.73)</b>		
CM + SOMA	0.66 (0.61 - 0.70)	<b>0.04 (0.01 - 0.06)</b>	<b>0.009</b>	0.62 (0.57 - 0.67)	<b>0.06 (0.02 - 0.10)</b>	<b>0.003</b>
<b>TNF-α (#2)</b>						
CM + Immunoassay	<b>0.69 (0.65 - 0.73)</b>			<b>0.68 (0.63 - 0.73)</b>		
CM + SOMA	0.66 (0.62 - 0.70)	<b>0.03 (0.000 - 0.06)</b>	<b>0.05</b>	0.63 (0.58 - 0.68)	<b>0.05 (0.001 - 0.09)</b>	<b>0.05</b>

**Supplemental Table 2. Harrell's C statistics for the clinical model with or without biomarkers for prediction of kidney failure and mortality.** Harrell's C Statistics in bold indicate the clinical model (CM) + biomarker has a statistically significant improvement in risk prediction over CM alone. Difference between assays summarizes difference between C-statistics of CM + immunoassay biomarker and CM + SOMAscan biomarker; bolded C-statistic and P values indicate statistically significant difference between immunoassay and SOMAscan models.



**Supplemental Figure 1. Forest Plots of Biomarkers and Risk of Kidney Failure and Mortality.** Hazard ratios (per 2-fold higher baseline level) for SOMAscan and immunoassay protein measurements with incident kidney failure and mortality adjusted for age, sex, and randomized treatment groups.