SUPPLEMENTAL TABLES AND FIGURES

Supplemental Table 1a. Baseline patient characteristics by quartile of urine NGAL/urine creatinine in random subcohort (N=489)

		Quartiles of Urine NGAL Standardized to Urine Creatinine				
Characteristics	**Overall (N=489)**	**1st Quartile 0.004-0.079 ng/mL / Cr (mg/dL) (N=123)**	**2nd Quartile 0.079-0.209 ng/mL / Cr (mg/dL) (N=122)**	**3rd Quartile 0.209-0.493 ng/mL / Cr (mg/dL) (N=121)**	**4th Quartile 0.493-56.995 ng/mL / Cr (mg/dL) (N=123)**	**p-value**
Age (yr)	51.4 ± 9.0	51.4 ± 9.4	51.1 ± 8.6	51.7 ± 8.7	51.5 ± 9.5	0.96
Women	189(39%)	19(15%)	27(22%)	61(50%)	82(67%)	<0.001
Race						0.64
White	371(76%)	98(80%)	96(79%)	89(74%)	88(72%)	
Black	86(18%)	18(15%)	21(17%)	23(19%)	24(20%)	
Other	32(7%)	7(6%)	5(4%)	9(7%)	11(9%)	
Treatment group						0.78
High dose vitamin	242(49%)	58(47%)	63(52%)	57(47%)	64(52%)	
Low dose vitamin	247(51%)	65(53%)	59(48%)	64(53%)	59(48%)	
Country						0.87
United States	338(69%)	85(69%)	82(67%)	82(68%)	89(72%)	
Canada	59(12%)	15(12%)	13(11%)	15(12%)	16(13%)	
Brazil	92(19%)	23(19%)	27(22%)	24(20%)	18(15%)	
Graft vintage (yr), median (25^{th}, 75^{th})	3.8 (1.7, 7.0)	4.0 (2.0, 7.1)	3.6 (1.6, 8.0)	3.8 (1.8, 5.9)	4.0 (1.3, 7.5)	0.54
Living donor kidney	207(42%)	62(50%)	54(44%)	49(40%)	42(34%)	0.07
History of cardiovascular disease	94(19%)	20(16%)	21(17%)	32(26%)	21(17%)	0.14
History of diabetes mellitus	179(37%)	46(37%)	45(37%)	50(41%)	38(31%)	0.40
Smoking						0.73
Never	243(50%)	58(47%)	68(56%)	56(46%)	61(50%)	
Current	58(12%)	13(11%)	12(10%)	17(14%)	16(13%)	
Former	188(38%)	52(42%)	42(34%)	48(40%)	46(37%)	
Calcineurin inhibitor use	430(88%)	108(88%)	109(89%)	108(89%)	105(85%)	0.75
Sirolimus use	49(10%)	10(8%)	10(8%)	14(12%)	15(12%)	0.59
Systolic blood pressure (mm Hg)	135.7 ± 20.0	135.1 ± 17.3	133.7 ± 18.8	137.1 ± 19.0	136.9 ± 24.3	0.49
Diastolic blood pressure (mm Hg)	79.2 ± 12.5	79.5 ± 12.2	78.1 ± 11.7	79.0 ± 11.4	80.2 ± 14.6	0.60
Body mass index (kg/m^2)	29.0 ± 5.9	29.6 ± 5.9	28.3 ± 5.0	28.8 ± 6.7	29.2 ± 6.0	0.38

Characteristics	Overall (N=489)	Quartiles of Urine NGAL Standardized to Urine Creatinine				p-value
		1st Quartile 0.004-0.079 ng/mL / Cr (mg/dL) (N=123)	2nd Quartile 0.079-0.209 ng/mL / Cr (mg/dL) (N=122)	3rd Quartile 0.209-0.493 ng/mL / Cr (mg/dL) (N=121)	4th Quartile 0.493-56.995 ng/mL / Cr (mg/dL) (N=123)	
HDL cholesterol (mg/dL)	46.8 ± 14.5	47.2 ± 12.4	45.6 ± 14.0	45.6 ± 14.3	48.9 ± 16.7	0.24
LDL cholesterol (mg/dL)	103.6 ± 33.1	106.3 ± 31.4	99.3 ± 30.9	106.9 ± 32.0	101.8 ± 37.4	0.22
Triglycerides (mg/dL)	199.2 ± 133.4	186.5 ± 98.8	185.7 ± 122.2	217.4 ± 146.1	207.2 ± 157.7	0.17
eGFR (mL/min/1.73m^2)*	46.0 ± 18.1	50.7 ± 17.2	48.8 ± 18.5	43.0 ± 16.7	41.3 ± 18.3	<0.001
Albumin Creatinine Ratio (mcg/mg), median (25th, 75th)	24.5 (9.5, 104.7)	13.5 (6.2, 33.9)	19.6 (7.9, 104.7)	23.6 (9.6, 102.2)	62.9 (20.1, 341.8)	<0.001
IL18 (pg/mL), median (25th, 75th)	29.1 (11.5, 62.5)	17.1 (5.2, 32.4)	31.3 (12.0, 62.2)	34.9 (18.9, 75.2)	43.8 (18.4, 102.3)	<0.001
IL18 (pg/mL) / Cr (mg/dL), median (25th, 75th)	0.3 (0.1, 0.7)	0.2 (0.1, 0.3)	0.3 (0.1, 0.6)	0.3 (0.2, 0.6)	0.6 (0.3, 1.2)	<0.001
KIM-1 (pg/mL), median (25th, 75th)	658.3 (319.3, 1364)	542.4 (247.3, 1054)	678.0 (353.3, 1303)	721.3 (452.0, 1557)	633.3 (281.2, 1654)	0.04
KIM-1 (pg/mL) / Cr (mg/dL), median (25th, 75th)	7.3 (3.8, 12.8)	5.6 (3.1, 8.2)	6.8 (3.8, 10.9)	8.7 (4.8, 13.4)	9.9 (3.9, 16.0)	<0.001
L-FABP (ng/mL), median (25th, 75th)	6.1 (3.0, 17.6)	3.6 (1.5, 6.8)	5.8 (3.1, 14.6)	7.6 (3.4, 20.1)	15.1 (3.9, 49.2)	<0.001
L-FABP (ng/mL) / Cr (mg/dL), median (25th, 75th)	0.1 (0.0, 0.2)	0.0 (0.0, 0.1)	0.1 (0.0, 0.1)	0.1 (0.0, 0.2)	0.2 (0.1, 0.6)	<0.001

Supplemental Table 1b. Baseline patient characteristics by quartile of urine KIM-1/urine creatinine in random subcohort (N=489)

		Quartiles of Urine KIM-1 Standardized to Urine Creatinine				
Characteristics	**Overall (N=489)**	**1st Quartile 0.096-3.833 pg/mL / Cr (mg/dL) (N=123)**	**2nd Quartile 3.833-7.256 pg/mL / Cr (mg/dL) (N=121)**	**3rd Quartile 7.256-12.833 pg/mL / Cr (mg/dL) (N=122)**	**4th Quartile 12.833-66.462 pg/mL / Cr (mg/dL) (N=123)**	**p-value**
Age (yr)	51.4 ± 9.0	50.4 ± 8.9	51.4 ± 9.1	50.7 ± 8.6	53.1 ± 9.3	0.09
Women	189(39%)	40(33%)	35(29%)	53(43%)	61(50%)	0.003
Race						0.27
White	371(76%)	95(77%)	92(76%)	90(74%)	94(76%)	
Black	86(18%)	24(20%)	24(20%)	20(16%)	18(15%)	
Other	32(7%)	4(3%)	5(4%)	12(10%)	11(9%)	
Treatment group						0.80
High dose vitamin	242(49%)	61(50%)	61(50%)	56(46%)	64(52%)	
Low dose vitamin	247(51%)	62(50%)	60(50%)	66(54%)	59(48%)	
Location						0.25
United States	338(69%)	95(77%)	80(66%)	79(65%)	84(68%)	
Canada	59(12%)	9(7%)	14(12%)	17(14%)	19(15%)	
Brazil	92(19%)	19(15%)	27(22%)	26(21%)	20(16%)	
Graft vintage (yr), median (25^{th}, 75^{th})	3.8 (1.7, 7.0)	3.6 (1.9, 7.3)	3.9 (2.0, 7.7)	3.8 (1.5, 7.0)	4.0 (1.5, 6.8)	0.79
Living donor kidney	207(42%)	64(52%)	48(40%)	52(43%)	43(35%)	0.050
History of cardiovascular disease	94(19%)	27(22%)	12(10%)	26(21%)	29(24%)	0.03
History of diabetes mellitus	179(37%)	41(33%)	40(33%)	46(38%)	52(42%)	0.39
Smoking						0.27
Never	243(50%)	57(46%)	65(54%)	56(46%)	65(53%)	
Current	58(12%)	18(15%)	7(6%)	16(13%)	17(14%)	
Former	188(38%)	48(39%)	49(40%)	50(41%)	41(33%)	
Calcineurin inhibitor use	430(88%)	103(84%)	107(88%)	109(89%)	111(90%)	0.40
Sirolimus use	49(10%)	14(11%)	9(7%)	14(11%)	12(10%)	0.70
Systolic blood pressure (mm Hg)	135.7 ± 20.0	134.6 ± 18.5	136.8 ± 20.6	135.4 ± 20.8	136.1 ± 20.2	0.84
Diastolic blood pressure (mm Hg)	79.2 ± 12.5	78.5 ± 12.8	79.1 ± 12.6	79.8 ± 13.6	79.5 ± 11.2	0.87
Body mass index (kg/m^2)	29.0 ± 5.9	28.6 ± 6.1	29.8 ± 6.2	29.0 ± 5.8	28.6 ± 5.7	0.30
HDL cholesterol (mg/dL)	46.8 ± 14.5	46.5 ± 11.8	46.7 ± 15.0	46.6 ± 14.1	47.5 ± 16.7	0.95
LDL cholesterol (mg/dL)	103.6 ± 33.1	105.6 ± 29.1	100.7 ± 32.2	104.1 ± 33.3	103.8 ± 37.4	0.70

Characteristics	Overall (N=489)	Quartiles of Urine KIM-1 Standardized to Urine Creatinine				p-value
		1st Quartile 0.096-3.833 pg/mL / Cr (mg/dL) (N=123)	2nd Quartile 3.833-7.256 pg/mL / Cr (mg/dL) (N=121)	3rd Quartile 7.256-12.833 pg/mL / Cr (mg/dL) (N=122)	4th Quartile 12.833-66.462 pg/mL / Cr (mg/dL) (N=123)	
Triglycerides (mg/dL)	199.2 ± 133.4	198.1 ± 129.6	206.4 ± 149.3	190.9 ± 114.5	201.4 ± 138.9	0.83
eGFR (mL/min/1.73m^2)*	46.0 ± 18.1	46.8 ± 17.8	46.0 ± 15.4	46.0 ± 18.0	45.0 ± 20.9	0.90
Albumin Creatinine Ratio (mcg/mg), median (25th, 75th)	24.5 (9.5, 104.7)	12.1 (6.4, 41.1)	21.2 (9.5, 80.7)	31.7 (11.2, 124.0)	47.3 (15.9, 367.4)	<0.001
IL18 (pg/mL), median (25th, 75th)	29.1 (11.5, 62.5)	18.1 (5.2, 50.0)	26.7 (5.2, 60.1)	33.0 (17.1, 58.1)	34.7 (21.4, 73.7)	<0.001
IL18 (pg/mL) / Cr (mg/dL), median (25th, 75th)	0.3 (0.1, 0.7)	0.2 (0.1, 0.6)	0.3 (0.1, 0.6)	0.3 (0.2, 0.6)	0.4 (0.2, 0.8)	0.01
L-FABP (ng/mL), median (25th, 75th)	6.1 (3.0, 17.6)	3.4 (1.5, 8.6)	5.8 (3.2, 15.1)	6.5 (3.4, 15.7)	10.1 (4.2, 29.5)	<0.001
L-FABP (ng/mL) / Cr (mg/dL), median (25th, 75th)	0.1 (0.0, 0.2)	0.0 (0.0, 0.1)	0.1 (0.0, 0.2)	0.1 (0.0, 0.2)	0.1 (0.0, 0.3)	<0.001
NGAL (ng/mL), median (25th, 75th)	20.2 (8.2, 51.3)	14.7 (3.5, 37.0)	13.3 (6.8, 30.2)	20.9 (9.2, 47.4)	36.4 (18.7, 92.9)	<0.001
NGAL (ng/mL) / Cr (mg/dL), median (25th, 75th)	0.2 (0.1, 0.5)	0.2 (0.1, 0.5)	0.1 (0.1, 0.3)	0.2 (0.1, 0.4)	0.4 (0.2, 1.0)	<0.001

Supplemental Table 1c. Baseline patient characteristics by quartile of urine IL-18/urine creatinine in random subcohort (N=489)

		Quartiles of Urine IL-18 Standardized to Urine Creatinine				
Characteristics	**Overall (N=489)**	**1st Quartile 0.025-0.136 pg/mL / Cr (mg/dL) (N=123)**	**2nd Quartile 0.136-0.294 pg/mL / Cr (mg/dL) (N=121)**	**3rd Quartile 0.294-0.673 pg/mL / Cr (mg/dL) (N=122)**	**4th Quartile 0.673-7.623 pg/mL / Cr (mg/dL) (N=123)**	**p-value**
Age (yr)	51.4 ± 9.0	51.8 ± 9.3	51.1 ± 8.7	51.1 ± 8.1	51.5 ± 9.8	0.90
Women	189(39%)	22(18%)	37(31%)	49(40%)	81(66%)	<0.001
Race						0.85
White	371(76%)	97(79%)	95(79%)	90(74%)	89(72%)	
Black	86(18%)	19(15%)	20(17%)	22(18%)	25(20%)	
Other	32(7%)	7(6%)	6(5%)	10(8%)	9(7%)	
Treatment group						0.18
High dose vitamin	242(49%)	61(50%)	57(47%)	70(57%)	54(44%)	
Low dose vitamin	247(51%)	62(50%)	64(53%)	52(43%)	69(56%)	
Location						0.003
United States	338(69%)	90(73%)	82(68%)	83(68%)	83(67%)	
Canada	59(12%)	22(18%)	17(14%)	13(11%)	7(6%)	
Brazil	92(19%)	11(9%)	22(18%)	26(21%)	33(27%)	
Graft vintage (yr), median (25^{th}, 75^{th})	3.8 (1.7, 7.0)	5.3 (2.0, 10.0)	3.7 (1.6, 7.1)	3.3 (1.4, 5.3)	3.6 (1.6, 6.6)	0.003
Living donor kidney	207(42%)	55(45%)	51(42%)	50(41%)	51(41%)	0.94
History of cardiovascular disease	94(19%)	31(25%)	22(18%)	21(17%)	20(16%)	0.27
History of diabetes mellitus	179(37%)	49(40%)	47(39%)	42(34%)	41(33%)	0.65
Smoking						0.59
Never	243(50%)	65(53%)	58(48%)	61(50%)	59(48%)	
Current	58(12%)	14(11%)	20(17%)	11(9%)	13(11%)	
Former	188(38%)	44(36%)	43(36%)	50(41%)	51(41%)	
Calcineurin inhibitor use	430(88%)	108(88%)	105(87%)	112(92%)	105(85%)	0.45
Sirolimus use	49(10%)	10(8%)	13(11%)	16(13%)	10(8%)	0.50
Systolic blood pressure (mm Hg)	135.7 ± 20.0	133.1 ± 16.5	137.0 ± 19.3	135.1 ± 20.6	137.6 ± 23.1	0.29
Diastolic blood pressure (mm Hg)	79.2 ± 12.5	77.1 ± 10.0	79.1 ± 11.9	79.5 ± 12.8	81.2 ± 14.7	0.08
Body mass index (kg/m^2)	29.0 ± 5.9	28.8 ± 6.0	28.7 ± 5.8	28.8 ± 5.9	29.6 ± 6.2	0.55
HDL cholesterol (mg/dL)	46.8 ± 14.5	45.9 ± 11.3	46.5 ± 14.4	48.1 ± 15.4	46.9 ± 16.4	0.70
LDL cholesterol (mg/dL)	103.6 ± 33.1	101.0 ± 30.7	107.1 ± 30.8	101.2 ± 36.1	105.0 ± 34.4	0.40

Characteristics	Overall (N=489)	Quartiles of Urine IL-18 Standardized to Urine Creatinine				p-value
		1st Quartile 0.025-0.136 pg/mL / Cr (mg/dL) (N=123)	2nd Quartile 0.136-0.294 pg/mL / Cr (mg/dL) (N=121)	3rd Quartile 0.294-0.673 pg/mL / Cr (mg/dL) (N=122)	4th Quartile 0.673-7.623 pg/mL / Cr (mg/dL) (N=123)	
Triglycerides (mg/dL)	199.2 ± 133.4	193.3 ± 108.8	195.2 ± 136.3	197.3 ± 124.2	210.8 ± 159.7	0.73
eGFR (mL/min/1.73m^2)*	46.0 ± 18.1	44.3 ± 17.6	48.0 ± 17.9	47.7 ± 19.8	43.8 ± 16.7	0.14
Albumin Creatinine Ratio (mcg/mg), median (25th, 75th)	24.5 (9.5, 104.7)	13.9 (7.0, 47.3)	21.7 (8.2, 87.9)	27.9 (10.2, 138.4)	45.6 (15.3, 255.5)	<0.001
KIM-1 (pg/mL), median (25th, 75th)	658.3 (319.3, 1364)	536.6 (232.4, 1178)	666.0 (324.3, 1302)	830.4 (452.0, 1478)	605.6 (330.3, 1449)	0.02
KIM-1 (pg/mL) / Cr (mg/dL), median (25th, 75th)	7.3 (3.8, 12.8)	5.0 (2.5, 10.7)	6.8 (3.7, 10.7)	8.6 (5.2, 14.0)	7.6 (3.9, 14.6)	<0.001
L-FABP (ng/mL), median (25th, 75th)	6.1 (3.0, 17.6)	4.0 (1.5, 8.4)	5.8 (3.1, 11.4)	7.0 (3.2, 23.4)	10.7 (3.4, 26.6)	<0.001
L-FABP (ng/mL) / Cr (mg/dL), median (25th, 75th)	0.1 (0.0, 0.2)	0.0 (0.0, 0.1)	0.1 (0.0, 0.1)	0.1 (0.0, 0.2)	0.1 (0.1, 0.4)	<0.001
NGAL (ng/mL), median (25th, 75th)	20.2 (8.2, 51.3)	10.3 (3.8, 23.0)	17.6 (7.2, 39.7)	22.9 (9.2, 51.4)	35.2 (15.2, 117.8)	<0.001
NGAL (ng/mL) / Cr (mg/dL), median (25th, 75th)	0.2 (0.1, 0.5)	0.1 (0.0, 0.3)	0.2 (0.1, 0.4)	0.2 (0.1, 0.5)	0.5 (0.2, 1.4)	<0.001

Supplemental Table 1d. Baseline patient characteristics by quartile of urine L-FABP/urine creatinine in random subcohort (N=489)

		Quartiles of Urine L-FABP Standardized to Urine Creatinine				
Characteristics	**Overall (N=489)**	**1st Quartile 0.007-0.032 ng/mL / Cr (mg/dL) (N=123)**	**2nd Quartile 0.032-0.057 ng/mL / Cr (mg/dL) (N=122)**	**3rd Quartile 0.057-0.190 ng/mL / Cr (mg/dL) (N=121)**	**4th Quartile 0.190-5.049 ng/mL / Cr (mg/dL) (N=123)**	**p-value**
Age (yr)	51.4 ± 9.0	50.4 ± 8.9	52.0 ± 9.5	51.7 ± 8.7	51.5 ± 9.0	0.56
Women	189(39%)	36(29%)	55(45%)	54(45%)	44(36%)	0.03
Race						0.24
White	371(76%)	101(82%)	91(75%)	94(78%)	85(69%)	
Black	86(18%)	18(15%)	24(20%)	18(15%)	26(21%)	
Other	32(7%)	4(3%)	7(6%)	9(7%)	12(10%)	
Treatment group						0.37
High dose vitamin	242(49%)	59(48%)	68(56%)	54(45%)	61(50%)	
Low dose vitamin	247(51%)	64(52%)	54(44%)	67(55%)	62(50%)	
Location						0.50
United States	338(69%)	83(67%)	88(72%)	86(71%)	81(66%)	
Canada	59(12%)	15(12%)	18(15%)	13(11%)	13(11%)	
Brazil	92(19%)	25(20%)	16(13%)	22(18%)	29(24%)	
Graft vintage (yr), median (25^{th}, 75^{th})	3.8 (1.7, 7.0)	4.0 (1.9, 7.3)	3.6 (1.6, 7.0)	4.1 (1.7, 7.1)	3.5 (1.5, 6.7)	0.82
Living donor kidney	207(42%)	50(41%)	53(43%)	50(41%)	54(44%)	0.94
History of cardiovascular disease	94(19%)	16(13%)	23(19%)	25(21%)	30(24%)	0.15
History of diabetes mellitus	179(37%)	40(33%)	41(34%)	47(39%)	51(41%)	0.41
Smoking						0.42
Never	243(50%)	71(58%)	60(49%)	55(45%)	57(46%)	
Current	58(12%)	10(8%)	13(11%)	17(14%)	18(15%)	
Former	188(38%)	42(34%)	49(40%)	49(40%)	48(39%)	
Calcineurin inhibitor use	430(88%)	108(88%)	109(89%)	112(93%)	101(82%)	0.09
Sirolimus use	49(10%)	8(7%)	10(8%)	8(7%)	23(19%)	0.003
Systolic blood pressure (mm Hg)	135.7 ± 20.0	131.7 ± 18.1	132.8 ± 18.4	134.8 ± 19.8	143.5 ± 21.6	<0.001
Diastolic blood pressure (mm Hg)	79.2 ± 12.5	76.5 ± 11.6	77.4 ± 11.1	79.8 ± 12.8	83.1 ± 13.6	<0.001
Body mass index (kg/m^2)	29.0 ± 5.9	28.2 ± 5.4	29.4 ± 6.7	28.9 ± 5.6	29.5 ± 5.9	0.30
HDL cholesterol (mg/dL)	46.8 ± 14.5	46.4 ± 12.7	49.1 ± 15.0	44.8 ± 11.7	47.0 ± 17.6	0.14
LDL cholesterol (mg/dL)	103.6 ± 33.1	104.9 ± 30.9	101.1 ± 29.0	101.6 ± 33.9	106.6 ± 37.9	0.51

Characteristics	Overall (N=489)	Quartiles of Urine L-FABP Standardized to Urine Creatinine: 1st Quartile 0.007-0.032 ng/mL / Cr (mg/dL) (N=123)	2nd Quartile 0.032-0.057 ng/mL / Cr (mg/dL) (N=122)	3rd Quartile 0.057-0.190 ng/mL / Cr (mg/dL) (N=121)	4th Quartile 0.190-5.049 ng/mL / Cr (mg/dL) (N=123)	p-value
Triglycerides (mg/dL)	199.2 ± 133.4	179.1 ± 109.5	194.7 ± 120.4	197.5 ± 110.2	225.3 ± 178.1	0.053
eGFR (mL/min/1.73m^2)*	46.0 ± 18.1	51.9 ± 18.1	47.9 ± 18.0	43.4 ± 15.9	40.6 ± 18.4	<0.001
Albumin Creatinine Ratio (mcg/mg), median (25th, 75th)	24.5 (9.5, 104.7)	10.4 (5.8, 20.5)	13.7 (7.4, 41.1)	28.7 (11.6, 133.8)	161.6 (48.2, 680.3)	<0.001
IL18 (pg/mL), median (25th, 75th)	29.1 (11.5, 62.5)	23.0 (5.2, 48.9)	24.8 (10.3, 43.7)	33.3 (13.6, 90.5)	34.7 (18.4, 81.6)	0.001
IL18 (pg/mL) / Cr (mg/dL), median (25th, 75th)	0.3 (0.1, 0.7)	0.2 (0.1, 0.4)	0.2 (0.1, 0.5)	0.4 (0.2, 0.8)	0.5 (0.2, 1.0)	<0.001
KIM-1 (pg/mL), median (25th, 75th)	658.3 (319.3, 1364)	706.9 (301.0, 1335)	544.7 (249.3, 1067)	797.4 (377.4, 1478)	699.6 (424.1, 1517)	0.03
KIM-1 (pg/mL) / Cr (mg/dL), median (25th, 75th)	7.3 (3.8, 12.8)	5.5 (2.8, 11.7)	6.4 (3.3, 9.8)	7.5 (4.2, 13.1)	8.8 (5.1, 15.8)	<0.001
NGAL(ng/mL), median (25th, 75th)	20.2 (8.2, 51.3)	14.5 (4.2, 38.7)	14.7 (5.5, 27.3)	18.9 (8.9, 44.1)	41.1 (19.6, 104.9)	<0.001
NGAL (ng/mL) / Cr (mg/dL), median (25th, 75th)	0.2 (0.1, 0.5)	0.1 (0.0, 0.3)	0.2 (0.1, 0.3)	0.2 (0.1, 0.4)	0.5 (0.2, 1.4)	<0.001

Supplemental Table 2. Multivariable associations of urine biomarkers with cardiovascular disease and death, excluding prevalent cardiovascular disease at study entry

Urine biomarker	Cardiovascular events HR (95% CI)*	All-cause death HR (95% CI)*
NGAL/ creatinine	1.18 (0.96, 1.44)	1.46 (1.24, 1.74)**
KIM-1/ creatinine	1.20 (0.89, 1.63)	1.28 (0.97, 1.69)
IL-18/ creatinine	0.88 (0.70,1.10)	1.04 (0.84, 1.28)
L-FABP/ creatinine	0.95 (0.77, 1.19)	1.14 (0.92, 1.41)

*Per log increase of urine biomarker, adjusted for demographics, treatment, country, diabetes, smoking, graft vintage, donor, blood pressure, lipids, BMI, eGFR, urine ACR

**$p<0.05$

Supplemental Table 3. Multivariable associations of urine biomarkers (not standardized to urine creatinine) with risk of cardiovascular events, graft failure and all-cause death

Urine biomarker	Cardiovascular events HR (95% CI)*	Graft failure HR (95% CI)**	All-cause death HR (95% CI)*
NGAL	**1.24 (1.06,1.44)†**	**1.30 (1.07, 1.57) †**	**1.40 (1.23, 1.61) †**
KIM-1	1.11 (0.94, 1.32)	0.92 (0.77, 1.11)	1.14 (0.97, 1.34)
IL-18	1.06 (0.89,1.27)	1.08 (0.89, 1.31)	**1.23 (1.04,1.46) †**
L-FABP	1.04 (0.87, 1.24)	1.01 (0.81, 1.26)	1.11 (0.94, 1.32)

*Per log increase of urine biomarker, adjusted for demographics, treatment, country, history of CVD, diabetes, smoking, graft vintage, donor, blood pressure, lipids, BMI, eGFR, urine ACR

**Per log increase of urine biomarker, adjusted for demographics, treatment, country, diabetes, smoking, graft vintage, donor, blood pressure, BMI, eGFR, urine ACR

†$p<0.05$

Supplemental Table 4. Adjusted hazard ratio estimates for cardiovascular events, graft failure and death according to urine biomarker, using a composite outcome

Urine biomarker/Cr	Risk of cardiovascular events or all-cause mortality*	Risk of graft failure or all-cause mortality*
NGAL/Cr	**1.35 (1.19, 1.53)**	**1.42 (1.25, 1.62)**
KIM-1/Cr	1.19 (0.98, 1.44)	1.18 (0.96, 1.45)
IL-18/Cr	1.13 (0.96, 1.33)	**1.21 (1.03, 1.42)**
L-FABP/Cr	1.10 (0.93, 1.30)	1.12 (0.95, 1.33)

*Adjusted for demographics, treatment, country, history of CVD, diabetes, smoking, graft vintage, donor, blood pressure, lipids, BMI, eGFR, urine ACR

Supplemental Figure 1. Scatterplots of estimated glomerular filtration rate and urine albumin to creatinine ratio with each urine injury biomarker (from random subcohort N=489)