

Supplementary Table S1. Demographic data for deceased-donor kidney transplant recipients at Emory University and DeKAF Genomics based on *APOL1* genotypes of the African American donor. Data presented as mean (SD) median, unless otherwise specified

Variable	<i>APOL1</i> =0, N=182	<i>APOL1</i> =1, N=225	<i>APOL1</i> =2, N=71	P-value
Panel reactive antibodies (%)	26.7 (35.6) 6.5	24.4 (33) 7	29.0 (36.5) 10	0.55
Donor age (years)	34.1 (16.4) 33	36.7 (16.1) 38	38.4 (14.1) 40	0.16
Donor terminal serum creatinine concentration (mg/dl)	1.2 (0.6) 1.1	1.3 (0.5) 1.1	1.3 (0.5) 1.2	0.23
Recipient age (years)	48.3 (14.4) 50	49.1 (15.2) 51	49.9 (11.4) 51	0.77
Recipient body mass index (kg/m ²)	27.5 (5.7) 27.1	27.3 (5.4) 26.8	27.7 (5.1) 27.4	0.93
Cold ischemia time (hours)	16.9 (8.1) 16.3	16.4 (7.9) 15.5	17.3 (6.8) 17.6	0.32
HLA mismatches (N)	4.2 (1.6) 4	4.5 (1.1) 5	3.9 (1.7) 4	0.01
Allograft survival (months)	47.3 (26.7) 48	49.6 (24.7) 48	46.3 (28.7) 48	0.44
Recipient last follow-up serum creatinine (mg/dl)	1.4 (0.6) 1.3	1.6 (0.9) 1.3	1.8 (1) 1.5	0.004
Recipient last follow-up MDRD eGFR (ml/min/1.73m ²)	72.1 (42.6) 63.7	61.1 (31.5) 58.7	49.6 (18.6) 47.2	0.001
Recipient gender male (N, %)	116 (63.7%)	139 (61.8%)	42 (59.2%)	0.79
Donor gender male (N, %)	102 (56%)	134 (59.6%)	42 (59.2%)	0.76
Recipient ethnicity African American (N, %)	87 (47.8%)	118 (52.4%)	41 (57.7%)	0.34
Standard-criteria donor (N, %)	153 (84.1%)	183 (81.3%)	59 (83.1%)	0.77
Non-heart-beating donor (N, %)	4 (2.2%)	6 (2.7%)	0 (0%)	0.39
Allograft failure within 6 months (N, %)	6 (3.3%)	4 (1.8%)	5 (7.0%)	0.08
Allograft failure within 1 year (N, %)	9 (4.9%)	10 (4.4%)	6 (8.5%)	0.41
Allograft failure, total (N, %)	23 (12.6%)	42 (18.7%)	17 (23.9%)	0.07
Recipient death (N, %)	27 (14.8%)	50 (22.2%)	17 (23.9%)	0.11
Recipient return to dialysis (N, %)	25 (13.7%)	45 (20%)	15 (21.1%)	0.19
Death with functioning allograft (N, %)	22 (12.1%)	29 (12.9%)	8 (11.3%)	0.93
Recipient acute rejection (N, %)	29 (15.9%)	57 (25.3%)	22 (31%)	0.02
Recipient first-week dialysis (N, %)	43 (23.6%)	47 (20.9%)	26 (36.6%)	0.03
Recipient induction immunosuppression (N, %)	159 (89.3%)	161 (72.5%)	55 (79.7%)	0.0002
Recipient primary diagnosis				1.00
Diabetes	40 (22.0%)	45 (20.0%)	15 (21.1%)	
Hypertension	52 (28.6%)	65 (28.9%)	19 (26.8%)	
Glomerulonephritis	24 (13.2%)	35 (15.6%)	12 (16.9%)	
Cystic	10 (5.5%)	13 (5.8%)	3 (4.2%)	
Other	56 (30.8%)	67 (29.8%)	22 (31.0%)	

Supplementary Table S2: Comparison of the predictive abilities the fully-adjusted model including/excluding APOL1 genotype (recessive model) as a covariate

Number of years post-kidney transplantation	Test	With APOL1		Without APOL1	
		Estimate	Confidence Interval	Estimate	Confidence Interval
1	AUC	0.69	(0.62,0.76)	0.69	(0.62,0.75)
	Specificity	0.50	(0.46,0.54)	0.50	(0.47,0.54)
	NPV	0.96	(0.94,0.98)	0.96	(0.94,0.98)
	PPV	0.10	(0.08,0.14)	0.10	(0.08,0.14)
	Sensitivity	0.74	(0.61,0.83)	0.74	(0.62,0.83)
3	AUC	0.70	(0.65,0.75)	0.68	(0.63,0.73)
	Specificity	0.53	(0.48,0.58)	0.52	(0.47,0.57)
	NPV	0.91	(0.87,0.93)	0.90	(0.87,0.93)
	PPV	0.27	(0.23,0.32)	0.27	(0.22,0.32)
	Sensitivity	0.76	(0.68,0.82)	0.76	(0.68,0.82)

AUC – area under the curve; NPV – negative predictive value; PPV – positive predictive value