Supplemental Table 1: Adjusted Structural Differences of Diabetic Kidney Injury in Youth-onset vs. Adult-onset T2D

	Youth-onset T2D (n=52*)	Adult-onset T2D (n=109**)	p-value
GBM width (mm)	576 (540-613)	505 (482-528)	0.002
Mesangial fractional volume	0.32 (0.30-0.35)	0.27 (0.25-0.29)	0.001
Cortical interstitial fractional volume [b]	0.19 (0.17-0.20)	0.18 (0.17-0.19)	0.40
Mean glomerular volume ($x10^6$ μm^3)	2.90 (2.56-3.24)	2.51 (2.29-2.73)	0.07
Percentage glomerular sclerosis (%)[a b]	0.05 (0.02-0.10)	0.02 (0.01-0.03)	0.07
Glomerular surface density ($\mu m^2/\mu m^3$)	0.08 (0.07-0.09)	0.10 (0.09-0.11)	0.008
Podocyte number density per glomerulus (10^6 μm^3)	90 (53-127)	145 (121-168)	0.02
Total glomerular filtration surface area (10^5 μm^2)	0.21 (0.17-0.25)	0.25 (0.22-0.27)	0.13

Adjusted means (LSmeans) and 95% CI. Adjusted for sex, age at biopsy, HbA1c, GFR and BMI.
[a] Cube root transformation due to positive skew.
[b] models also adjusted for embedding media.
GBM = glomerular basement membrane;
*except n=47 for percentage glomerular sclerosis; n=46 for mean glomerular volume and total filtration surface area; n=45 for cortical interstital fractional volume
**except n=89 for percentage glomerular sclerosis; n=92 for mean glomerular volume and total filtration surface area; n=86 for cortical interstital fractional volume

Supplemental Table 2. Relationships between Age of T2D Onset and Diabetic Kidney Injuries

	Age of onset*	
	β±SE	P-value
GBM width (nm)	-4.42±1.45	0.003
Mesangial fractional volume	-0.004±0.001	0.0003
Cortical interstitial fractional volume [b]	-0.001±0.001	0.40
Mean glomerular volume (10^6 μm^3)	-0.027±0.014	0.048
Percentage glomerular sclerosis (%) [a,b]	-0.010±0.004	0.01
Glomerular filtration surface density ($\mu m^2/\mu m^3$)	0.001±0.0004	0.009
Podocyte number density per glomerulus (10^6 μm^3)	2.93±1.46	0.047
Total glomerular filtration surface area (10^5 μm^2)	0.001±0.002	0.38

*Adjusted for glomerular filtration rate, HbA1c, sex, age at biopsy and BMI. [a] Cube root transformation due to positive skew. [b] models also adjusted for embedding media.; GBM = glomerular basement membrane