**Supplementary Material**

**Figure S1. Baseline urine KIM-1 was not correlated with eGFR, global and segmental sclerosis, interstitial fibrosis or tubular atrophy**

|  |  |
| --- | --- |
| **(A)** KIM-1\*eGFR (Spearman’s rho=-0.01 *p*=0.98) | **(B)** KIM-1\*Global Sclerosis (Spearman’s rho=-0.23 *p*=0.26) |
| The SGPlot Procedure | The SGPlot Procedure |
| **(C)** KIM-1\*Segmental Sclerosis (Spearman’s rho=0.28 *p*=0.17) | **(D)** KIM-1\*Intestinal fibrosis (Spearman’s rho=0.06 *p*=0.72) |
| The SGPlot Procedure | The SGPlot Procedure |
| **(E)** KIM-1\*Tubular atrophy (Spearman’s rho=0.04 *p*=0.81) |  |
| The SGPlot Procedure |  |
|  |  |

KIM1, kidney injury molecule; uKIM-1/UCR, urine KIM-1/urine creatinine concentration

**Figure S2. Baseline urine POSTN was not correlated with global and segmental sclerosis, interstitial fibrosis or tubular atrophy, foot process effacement or time to complete remission**

|  |  |
| --- | --- |
| **(A)** POSTN\*Global Sclerosis (Spearman’s rho=0.11 *p*=0.61) | **(B)** POSTN\*Segmental Sclerosis (Spearman’s rho=0.31 *p*=0.13) |
| The SGPlot Procedure | The SGPlot Procedure |
| **(C)** POSTN\*Intestinal fibrosis (Spearman’s rho=0.31 *p*=0.05) | **(D)** POSTN \*Tubular atrophy (Spearman’s rho=0.29 *p*=0.06) |
| The SGPlot Procedure | The SGPlot Procedure |
| **(E)** POSTN\*Foot process effacement (Spearman’s rho=0.28*p*=0.11) | **(F)** POSTN\*Time to complete remission (*p*=0.17) |
| The SGPlot Procedure | The SGPlot Procedure |

POSTN, Periostin; uPN/UCR, urine periostin/urine creatinine concentration

**Figure S3 Glomerular KIM-1 expression was not correlated with interstitial fibrosis, tubular atrophy, or global sclerosis**

|  |  |
| --- | --- |
| KIM-1-Glom *p*=0.06 rho=0.19 | KIM-1-Glom *p*=0.08 rho=0.18 |
| The SGPlot Procedure | The SGPlot Procedure |
| KIM-1-Glom *p*=0.95 rho=-0.01 |  |
| The SGPlot Procedure |  |

**Figure S4. No relationship with POSTN expression and biopsy morphology**

|  |  |
| --- | --- |
| POSTN-TI *p=*0.61 | POSTN-Glom *p*=0.19 |
| The SGPlot Procedure | The SGPlot Procedure |
| POSTN-TI p=0.05 rho=0.19 | POSTN-Glom *p*=0.96rho=0.01 |
| The SGPlot Procedure | The SGPlot Procedure |
| POSTN-TI *p*=0.06 rho=0.17 | POSTN-Glom *p*=0.92rho=-0.01 |
| The SGPlot Procedure | The SGPlot Procedure |
| POSTN-TI *p=*0.32 rho=0.12 | POSTN-Glom *p*=0.32rho=0.15 |
| The SGPlot Procedure | The SGPlot Procedure |

Glom, glomerular; POSTN, Periostin; TI, tubulointerstitial;

**Figure S5 The relationship between UACR and KIM-1 and POSTN expression**

|  |  |
| --- | --- |
| (**A**) KIM-1-TI *p*<0.001 rho=0.35 | **(B)** KIM-1-Glom *p*=0.02 rho=0.25 |
| The SGPlot Procedure | The SGPlot Procedure |
| **(C)** POSTN-TI *p=*0.02 rho=0.24 | **(D)** POSTN-Glom *p*=0.94 rho=0.01 |
| The SGPlot Procedure | The SGPlot Procedure |

Glom, glomerular; KIM-1, kidney injury molecule-1; POSTN, Periostin; TI, tubulointerstitial;

**Table S1. Descriptive characteristics of high and low urinary KIM-1 (median split)**

|  |  |  |  |
| --- | --- | --- | --- |
| Characteristic | Low KIM1 | High KIM1 | *p*-value |
| Age at baseline, median (IQR) | 38 (24, 57) | 43 (29, 47) | 0.73 |
| Children (age <18), n (%) | 4 (16) | 3 (12) |  |
| Female, n (%) | 12 (48) | 11 (44) | 0.78 |
| Race, n (%) |  |  | 0.50 |
| Asian/Asian American | 2 (8) | 5 (20) |  |
| Black/African American | 7 (28) | 6 (24) |  |
| White/Caucasian | 13 (52) | 13 (52) |  |
| Other | 3 (12) | 1 (4) |  |
| Diagnosis, n (%) |  |  | 0.16 |
| Minimal change disease | 6 (24) | 2 (8) |  |
| Focal segmental glomerulosclerosis  | 12 (48) | 9 (36) |  |
| Membranous nephropathy | 3 (12) | 8 (32) |  |
| Other glomerulopathy | 4 (16) | 6 (24) |  |
| Urine protein: creatinine ratio at eligibility (g/g), median (IQR) | 1.3 (0.9, 2.9) | 5.3 (2.5, 11.7) | <0.001 |
| >3.0g/g, n (%) | 6 (24) | 18 (72) |  |
| eGFR at baseline (mL/min/1.73m2), median (IQR) | 74 (33, 97) | 76 (44 to 102) | 0.58 |
| Treatment after baseline, n (%) |  |  |  |
| Steroids | 4 (16) | 10 (40) | 0.06 |
| Calcineurin inhibitors | 1 (4) | 4 (16) | 0.16 |
| Mycophenolate mofetil | 2 (8) | 5 (20) | 0.22 |
| Cyclophosphamide | 0 (0) | 1 (4) | 0.31 |
| Total months of follow-up, median (IQR) | 30 (13, 53) | 44 (23, 54) | 0.39 |

eGFR, estimated glomerular filtration rate; IQR, interquartile range; NEPTUNE, Nephrotic Syndrome Study Network

**Table S2. Spearman correlation of glomerular and tubular KIM1, POSTN, and MCP1 expression**

|  |  |  |
| --- | --- | --- |
|  | Glomerular | Tubulointerstitial |
| KIM-1 | POSTN | MCP-1 | KIM-1 | POSTN | MCP-1 |
| Glomerular | KIM-1 | --- | -0.22\* | 0.01 | 0.53\* | 0.07 | 0.33\* |
| POSTN | -0.22\* | --- | 0.19\* | -0.05 | 0.23\* | -0.03 |
| MCP-1 | 0.01 | 0.19\* | --- | 0.18 | 0.23\* | 0.33\* |
| Tubulointerstitial | KIM-1 | 0.53\* | -0.05 | 0.18 | --- | 0.27\* | 0.67\* |
| POSTN | 0.07 | 0.23\* | 0.23\* | 0.27\* | --- | 0.43\* |
| MCP-1 | 0.33\* | -0.03 | 0.33\* | 0.67\* | 0.43\* | --- |

\**p*<0.05