

Supplementary Table 1. Key Demographic and Renal Characteristics of All ACCORD Participants and Participants with Banked Blood/Urine Specimens

	All ACCORD Participants (n=10251)	Baseline and follow-up plasma and urine samples (n=3262)	P
Age, Mean (SD)	62.8 (6.6)	62.3 (6.3)	0.72
Male, n (%)	6299 (61.5)	1829 (55)	0.81
Race, n (%)			0.56
White	6393 (62.4)	2134 (64.2)	
Black	1953 (19.1)	500 (15.1)	
Hispanic	737 (7.1)	259 (7.8)	
Other	1168 (11.4)	430 (12.9)	
Baseline eGFR, Median [IQR]	89.6 [75.4-105.1]	90.1 (76.1-105.2)	0.91
Baseline UACR, Median [IQR]	14 [7-47]	13 [7-41]	0.78

Supplementary Table 2. Odds Ratios (OR) and 95% Confidence Intervals (CI) for sustained 40% decline in eGFR for urinary biomarkers modeled categorically and continuously

	Model 1 Odds Ratio (95% CI)	Model 2 Odds Ratio (95% CI)	Model 3 Odds Ratio (95% CI)
Participants without albuminuria (n=214)			
<=89 pg/ml	1 (Ref)	1 (Ref)	1 (Ref)
90-177 pg/ml	1.71 (0.86-3.51)	1.81 (0.85-3.83)	2.40 (0.97-5.97)
178-324 pg/ml	2.84 (1.47-5.81)	3.01 (1.81-6.02)	2.69 (1.00-8.18)
>=325 pg/mg	4.14 (2.00-9.40)	5.02 (1.68-10.07)	6.58 (1.91-17.22)
OR per 1 unit increase in log MCP1/mg	2.00 (1.28-3.12)	1.99 (1.22-3.22)	2.33 (1.29-4.23)
Participants with albuminuria (n=166)			
<=0.14 pg/mg	1 (Ref)	1 (Ref)	1 (Ref)
0.15-0.25 pg/mg	1.41 (0.45-4.42)	1.44 (0.40-5.22)	1.90 (0.63-5.71)
0.26-0.44 pg/mg	1.58 (0.64-3.84)	1.69 (0.63-4.50)	3.80 (1.01-14.83)
>=0.45 pg/mg	2.86 (1.10-6.87)	3.87 (1.65-10.31)	5.13 (1.78-13.30)
OR per 1 unit increase in log IL18/mg	1.74 (1.02-2.95)	1.89 (1.04-3.44)	2.05 (1.21-4.99)

Supplementary Table 3. Odds Ratios (OR) and 95% Confidence Intervals (CI) for sustained 40% decline in eGFR for urinary biomarkers not indexed to urinary creatinine modeled categorically and continuously

	Model 1 Odds Ratio (95% CI)	Model 2 Odds Ratio (95% CI)	Model 3 Odds Ratio (95% CI)
<u>Urinary MCP-1</u>			
<=0.88 pg/mg	1 (Ref)	1 (Ref)	1 (Ref)
0.89-1.35 pg/mg	1.32 (0.57-3.04)	1.33 (0.56-3.19)	1.91 (0.60-6.08)
1.36—2.11 pg/mg	1.96 (0.89-4.35)	1.92 (0.84-4.38)	2.97 (0.97-9.13)
>2.11 pg/mg	3.83 (1.70-8.63)	3.88 (1.66-9.05)	9.92 (2.81-34.97)
OR per 1 unit increase in log MCP1/mg	1.32 (1.04-1.67)	1.34 (1.04-1.72)	1.61 (1.12-2.32)
<u>Urinary IL-18</u>			
<=13 pg/ml	1 (Ref)	1 (Ref)	1 (Ref)
14-29 pg/ml	1.45 (0.69-3.01)	1.45 (0.67-3.15)	1.64 (0.58-4.60)
30-58 pg/ml	0.94 (0.47-1.90)	0.99 (0.47-2.12)	0.98 (0.35-2.76)
>=59 pg/ml	1.53 (0.75-3.15)	1.35 (0.62-2.94)	1.30 (0.50-3.44)
OR per 1 unit increase in log IL18	1.11 (0.89-1.40)	1.10 (0.86-1.42)	1.10 (0.86-1.42)
<u>Urinary KIM-1</u>			
<=428 pg/ml	1 (Ref)	1 (Ref)	1 (Ref)
429-904 pg/ml	1.48 (0.68-3.23)	1.57 (0.67-1.66)	1.58 (0.68-3.68)
905-1510 pg/ml	1.08 (0.48-2.42)	0.90 (0.38-2.15)	0.90 (0.38-2.13)
>=1511 pg/ml	2.26 (0.99-5.11)	2.55 (1.04-6.26)	2.51 (1.02-6.19)
OR per 1 unit increase in log KIM1	1.10 (0.86-1.40)	1.13 (0.87-1.48)	1.12 (0.85-1.46)
<u>Urinary YKL40/Cr</u>			
<=63 pg/ml	1 (Ref)	1 (Ref)	1 (Ref)
64-301 pg/ml	1.23 (0.61-2.51)	1.25 (0.59-2.66)	1.79 (0.66-4.87)
302-694 pg/ml	1.34 (0.66-2.70)	1.57 (0.72-3.41)	2.16 (0.77-6.09)
>=695 pg/ml	1.18 (0.57-2.42)	1.18 (0.54-2.58)	1.59 (0.52-4.89)
OR per 1 unit increase in log YKL40	1.01 (0.87-1.16)	1.00 (0.86-1.17)	1.05 (0.84-1.31)

Model 1: Conditional Logistic Model with cases and controls; **Model 2:** Model 1 + diabetic/cardiovascular risk factors (HbA1c; Mean Arterial Pressure; History of Cardiovascular Disease; intensive glycemic and blood pressure control); **Model 3:** Model 2 + Medications (Fibrates/ ACE-Inhibitors/Angiotensin Receptor Blockers/ Thiazolidinedione)

Supplementary Table 4. Odds Ratios (OR) and 95% Confidence Intervals (CI) for CKD Stage 3b or higher for urinary biomarkers indexed to urinary creatinine modeled categorically and continuously

	Model 1 Odds Ratio (95% CI)	Model 2 Odds Ratio (95% CI)	Model 3 Odds Ratio (95% CI)
<u>Urinary MCP-1</u>			
<=260 pg/ml	1 (Ref)	1 (Ref)	1 (Ref)
90-177 pg/ml	1.80 (1.00-3.25)	1.95 (1.04-3.68)	1.69 (0.77-3.59)
178-324 pg/ml	2.39 (1.29-4.43)	2.56 (1.31-5.02)	3.01 (1.29-7.04)
>=325 pg/mg	2.99 (1.60-5.59)	3.51 (1.75-7.030)	5.48 (2.24-13.39)
OR per 1 unit increase in log MCP1	1.37 (1.11-1.68)	1.40 (1.12-1.76)	1.50 (1.14-1.97)
<u>Urinary IL-18</u>			
<=13 pg/ml	1 (Ref)	1 (Ref)	1 (Ref)
14-29 pg/ml	1.43 (0.80-2.54)	1.38 (0.75-2.54)	1.76 (0.85-3.64)
30-58 pg/ml	1.44 (0.83-2.49)	1.32 (0.73-2.38)	1.75 (0.86-3.57)
>=59 pg/ml	1.60 (0.92-2.78)	1.54 (0.85-2.79)	1.87 (0.92-3.79)
OR per 1 unit increase in log IL18	1.12 (0.94-1.35)	1.10 (0.91-1.35)	1.13 (0.90-1.43)
<u>Urinary KIM-1</u>			
<=428 pg/ml	1 (Ref)	1 (Ref)	1 (Ref)
429-904 pg/ml	0.82 (0.46-1.46)	0.94 (0.51-1.75)	1.20 (0.57-2.49)
905-1510 pg/ml	1.51 (0.85-2.68)	1.64 (0.90-3.00)	2.06 (0.97-4.27)
>=1511 pg/ml	1.45 (0.80-2.63)	1.50 (0.79-2.84)	1.92 (0.90-4.07)
OR per 1 unit increase in log KIM1	1.06 (0.87-1.30)	1.09 (0.88-1.36)	1.21 (0.94-1.57)
<u>Urinary YKL40/Cr</u>			
<=63 pg/ml	1 (Ref)	1 (Ref)	1 (Ref)
64-301 pg/ml	1.31 (0.72-2.39)	1.38 (0.73-2.60)	1.51 (0.74-3.10)
302-694 pg/ml	1.56 (0.86-2.82)	1.67 (0.88-3.18)	1.90 (0.92-3.97)
>=695 pg/ml	1.08 (0.63-1.87)	1.14 (0.63-2.05)	1.33 (0.66-2.71)
OR per 1 unit increase in log YKL40	1.06 (0.87-1.30)	1.04 (0.93-1.15)	1.08 (0.94-1.25)

Model 1: Conditional Logistic Model with cases and controls; **Model 2:** Model 1 + diabetic/cardiovascular risk factors (HbA1c; Mean Arterial Pressure; History of Cardiovascular Disease; intensive glycemic and blood pressure control); **Model 3:** Model 2 + Medications (Fibrates/ ACE-Inhibitors/Angiotensin Receptor Blockers/ Thiazolidinedione)

Supplementary Table 5. Odds Ratios (OR) and 95% Confidence Intervals (CI) for sustained 40% decline in eGFR for change in urinary biomarkers from baseline to 24 months

	Model 1 Odds Ratio (95% CI)	Model 2 Odds Ratio (95% CI)	Model 3 Odds Ratio (95% CI)
<u>Urinary MCP-1</u>			
OR per unit change from baseline to 24 months	1.00 (0.99-1.01)	1.00 (0.99-1.01)	1.00 (0.99-1.02)
<u>Urinary IL-18</u>			
OR per unit change from baseline to 24 months	1.12 (0.94-1.35)	1.10 (0.91-1.35)	1.13 (0.90-1.43)
<u>Urinary KIM-1</u>			
OR per unit change from baseline to 24 months	1.06 (0.87-1.30)	1.09 (0.88-1.36)	1.21 (0.94-1.57)
<u>Urinary YKL40/Cr</u>			
OR per unit change from baseline to 24 months	1.06 (0.87-1.30)	1.04 (0.93-1.15)	1.08 (0.94-1.25)

Model 1: Conditional Logistic Model with cases and controls; **Model 2:** Model 1 + diabetic/cardiovascular risk factors (HbA1c; Mean Arterial Pressure; History of Cardiovascular Disease; intensive glycemic and blood pressure control); **Model 3:** Model 2 + Medications (Fibrates/ ACE-Inhibitors/Angiotensin Receptor Blockers/ Thiazolidinedione)

Supplementary Table 6. Odds Ratios (OR) and 95% Confidence Intervals (CI) for sustained 40% decline in eGFR for 24-month urinary biomarkers indexed to urinary creatinine modeled categorically and continuously

	Model 1 Odds Ratio (95% CI)	Model 2 Odds Ratio (95% CI)
<u>Urinary MCP-1/Cr at 24 months</u>		
<=0.91 pg/mg	1 (Ref)	1 (Ref)
0.92-1.41 pg/mg	0.84 (0.46-1.52)	0.43 (0.15-1.29)
1.42-2.11 pg/mg	1.17 (0.64-2.15)	0.60 (0.21-1.71)
>=2.12 pg/mg	1.93 (1.04-3.57)	0.83 (0.29-2.38)
OR per 1 unit log increase	1.38 (1.04-1.84)	0.85 (0.52-1.40)
<u>Urinary IL-18/Cr at 24 months</u>		
<=0.15 pg/mg	1 (Ref)	1 (Ref)
0.16-0.28 pg/mg	0.86 (0.47-1.58)	0.63 (0.21-1.86)
0.29-0.46 pg/mg	0.89 (0.49-1.61)	1.67 (0.59-4.78)
>=0.47 pg/mg	0.85 (0.45-1.60)	1.83 (0.60-5.58)
OR per 1 unit log increase	0.88 (0.68-1.13)	1.31 (0.82-2.09)
<u>Urinary KIM-1/Cr at 24 months</u>		
<=3.97 pg/mg	1 (Ref)	1 (Ref)
3.98-6.63 pg/mg	1.49 (0.81-2.73)	1.85 (0.68-5.02)
6.64-10.51 pg/mg	0.87 (0.46-1.65)	1.64 (0.51-5.28)
>=10.52 pg/mg	1.12 (0.61-2.05)	0.75 (0.26-2.21)
OR per 1 unit log increase	0.93 (0.70-1.23)	0.81 (0.48-1.36)
<u>Urinary YKL40/Cr at 24 months</u>		
<=0.98 pg/mg	1 (Ref)	1 (Ref)
0.99-3.08 pg/mg	0.75 (0.41-1.37)	0.66 (0.24-1.78)
3.09-8.23 pg/mg	0.54 (0.28-1.03)	0.78 (0.27-2.30)
>=8.24 pg/mg	0.85 (0.44-1.65)	1.07 (0.38-3.06)
OR per 1 unit log increase	0.97 (0.84-1.12)	0.96 (0.76-1.20)