Supplemental Table S1. Analytes monitored in the study by using UHPLC-MS/MS. Peptides represent total IgG, IgG1, IgG2, IgG3, and IgG4 were used to monitor the protein amounts in plasma. Correlation coefficients (r) of calibration curves are listed in the table.

Analyte	Q1[a]	Q2	r
(1) H4N4F1-IgG1	932.8	204.1	0.978
(2) H5N4F1-IgG1	986.8	366.1	0.978
(3) H3N4F1-IgG1	878.8	204.1	0.978
(4) H4N4-IgG1	884.1	204.1	0.975
(5) H5N4-IgG1	938.1	366.1	0.975
(6) H4N5F1-IgG1	1000.5	204.1	0.978
(7) H3N5F1-IgG1	946.5	204.1	0.973
(8) H5N5F1-IgG1	1054.5	366.1	0.976
(9) H4N5-IgG1	951.7	204.1	0.977
(10) H5N4F1S1-IgG1	1083.8	366.1	0.978
(11) H4N4F1S1-IgG1	1029.8	204.1	0.980
(12) H3N4F1-IgG3/4	873.4	204.1	0.997
(13) H4N4F1-IgG3/4	927.4	204.1	0.987
(14) H3N5F1-IgG3/4	941.1	204.1	0.981
(15) H4N5F1-IgG3/4	995.1	204.1	0.982
(16) H5N4F1S1-IgG3/4	1078.4	366.1	0.975
(17) H5N4F1-IgG2	976.1	366.1	0.990
(18) H5N5F1-IgG2	1043.8	366.1	0.987
(19) H4N4F1-IgG2	922.1	204.1	0.992
(20) H4N5F1-IgG2	989.9	204.1	0.991
(21) H4N4-IgG2	873.4	204.1	0.985
(22) H4N5-IgG2	941.1	204.1	0.947
(23) H3N4F1-IgG2	868.1	204.1	0.989
(24) H3N5F1-IgG2	935.8	204.1	0.988
(25) H5N4F1S1-IgG2	1073.1	366.1	0.979
(26) H4N4F1S1-IgG2	1019.1	204.1	0.980
IgG - DTLMISR	418.2	310.2	0.999
		506.3	
		619.4	
IgG1 - GPSVFPLAPSSK	593.8	418.2	0.998
		699.4	
		846.5	

IgG2 - GLPAPIEK	953.5	804.4	0.997
		852.4	
		1150.5	
IgG3 - WYVDGVEVHNAK	472.9	484.7	0.999
		534.3	
		697.4	
		853.5	
IgG4 - TTPPVLDSDGSFFLYSR	951.5	850.4	0.996
		1293.6	
DSTYSLSSTLTLSK (IS)	755.9	844.5	NA
		957.6	
		1044.6	

[a] Q1 represents parent ions and Q2 represents product ions.

[b] IgG1 glycopeptide: glycan-EEQYNSTYR; H, hexose; N, N-acetylglucosamine; F, fucose; S, N-acetylneuraminic acid; IgG2 glycopeptide: glycan-EEQFNSTFR; IgG3/4 glycopeptide: glycan-EEQYNSTFR (IgG3); glycan-EEQFNSTYR (IgG4)

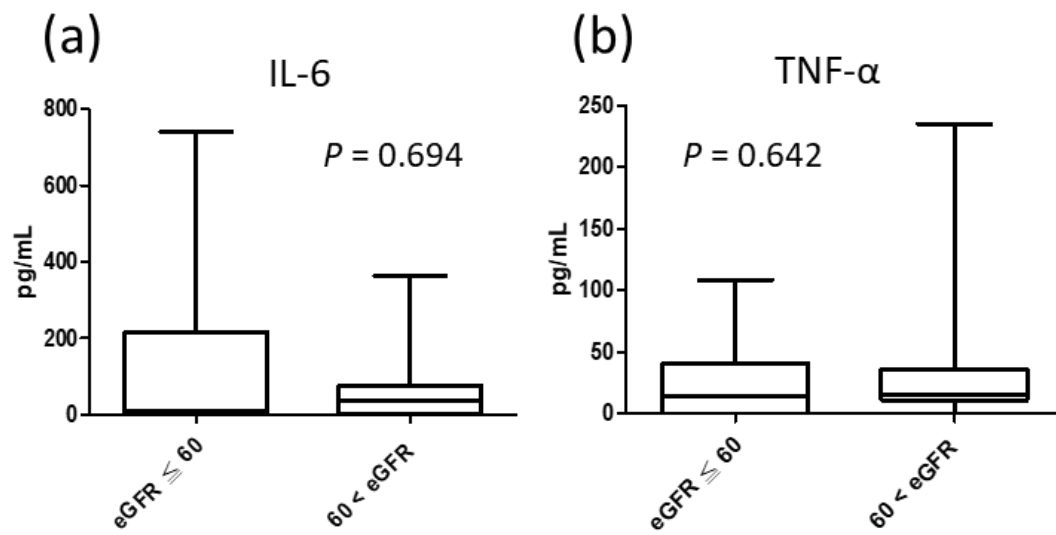**Supplemental Table S2.** Characteristics of 57 participants in the study.

Case number	Age	Gender	eGFR (mL/min/1.73m2)	Primary disease[a]
1	57	M	21	GN
2	29	M	86	GN
3	72	F	88	GN
4	62	M	55	GN
5	60	F	91	GN
6	68	F	67	HTN
7	60	F	78	GN
8	64	M	59	GN
9	72	F	75	GN
10	64	F	68	GN
11	71	M	30	DMN, HTN
12	68	M	71	GN
13	53	M	68	HTN
14	59	M	56	GN
15	69	F	34	DMN, HTN
16	71	F	58	GN
17	57	F	79	HTN
18	69	F	67	GN
19	34	M	35	DMN, HTN
20	72	F	105	Non-CKD
21	66	F	171	Non-CKD
22	59	M	106	Non-CKD
23	58	F	92	Non-CKD
24	69	M	79	Non-CKD
25	68	M	79	Non-CKD
26	69	F	76	Non-CKD
27	68	F	59	Non-CKD
28	52	M	75	Non-CKD
29	27	M	108	Non-CKD
30	29	F	108	GN
31	39	F	45	HTN
32	38	F	120	GN
33	43	M	25	HTN
34	40	M	23	HTN

35	65	F	77	HTN
36	64	M	104	GN
37	67	M	68	DMN
38	53	M	29	GN
39	73	M	15	DMN, HTN
40	52	M	57	GN
41	66	M	65	GN
42	76	M	33	GN
43	68	M	65	DMN
44	71	M	23	GN
45	72	M	53	DMN, HTN
46	63	M	41	HTN
47	45	M	41	GN
48	66	M	34	DMN, HTN
49	55	F	33	DMN, HTN
50	75	M	35	DMN, HTN
51	44	M	19	HTN
52	40	M	66	GN
53	59	M	60	DMN
54	53	M	56	HTN
55	49	M	57	HTN
56	73	F	87	Non-CKD
57	64	F	77	Non-CKD

[a] GN: glomerulonephritis; DMN: diabetic nephropathy; HTN: hypertension; CKD: chronic kidney disease.

Supplemental Table S3. Results of correlation analysis of natural abundances and normalized abundances of 26 IgG glycopeptides to the eGFR values.

Glycopeptides	Natural abundance		Normalized abundance	
	r	*p*	*r*	*p*
(1) H4N4F1-IgG1	0.4372	0.0008	0.1838	0.1752
(2) H5N4F1-IgG1	0.3844	0.0034	0.1104	0.4178
(3) H3N4F1-IgG1	0.2715	0.0430	0.1027	0.4513
(4) H4N4-IgG1	0.1823	0.1788	-0.0860	0.5293
(5) H5N4-IgG1	0.1155	0.3967	-0.1181	0.3861
(6) H4N5F1-IgG1	0.3191	0.0165	0.0667	0.6254
(7) H3N5F1-IgG1	0.2275	0.0918	-0.0028	0.9834
(8) H5N5F1-IgG1	0.3188	0.0166	0.0349	0.7982
(9) H4N5-IgG1	0.3892	0.0030	0.1504	0.2685
(10) H5N4F1S1-IgG1*	0.3926	0.0028	0.2501	0.0630
(11) H4N4F1S1-IgG1*	0.4538	0.0004	0.3727	0.0047
(12) H3N4F1-IgG3/4	0.1412	0.2991	-0.0835	0.5407
(13) H4N4F1-IgG3/4	0.2358	0.0802	0.1771	0.1916
(14) H3N5F1-IgG3/4	0.1434	0.2919	-0.1090	0.4239
(15) H4N5F1-IgG3/4	0.2601	0.0529	0.0466	0.7329
(16) H5N4F1S1-IgG3/4	0.2452	0.0686	0.0797	0.5593
(17) H5N4F1-IgG2	0.3248	0.0146	0.0206	0.8801
(18) H5N5F1-IgG2	0.2995	0.0250	0.0448	0.7433
(19) H4N4F1-IgG2	0.3510	0.0080	0.2104	0.1196
(20) H4N5F1-IgG2	0.3189	0.0166	0.0679	0.6192
(21) H4N4-IgG2	0.3394	0.0105	0.0373	0.7847
(22) H4N5-IgG2	0.3406	0.0102	0.1604	0.2376
(23) H3N4F1-IgG2	0.3246	0.0146	0.0853	0.5321
(24) H3N5F1-IgG2	0.3357	0.0114	0.0280	0.8377
(25) H5N4F1S1-IgG2	0.3636	0.0059	0.1290	0.3435
(26) H4N4F1S1-IgG2	0.3981	0.0024	0.1724	0.2038

Supplemental Figure S1. Statistical analysis of plasma concentrations of IL-6 (a) and TNF-α (b) between groups with eGFR values lower and higher than 60 mL/min/1.73 m^2.