## Comprehensive analyses of the immunoglobulin proteome for the classification of glomerular diseases

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Table S1. Acronyms and full description of clinical data variables used in this

study.

Abbreviation	Full name
Cr	creatinine
Ure	urea
Cys-C	cystatin-C
eGFR	estimated glomerular filtration rate
24hUP	24 hour urine protein
TP	total protein
ALB	albumin
ALP	alkaline phosphatase
GGT	gamma-glutamyl transferase
ALT	alanine aminotransfease
AST	aspartate aminotransferase
TBIL	total bilirubin
DBIL	direct bilirubin
TBA	total bile acid
LDH	lactate dehydrogenase
ТС	total cholesterol
TG	triglyceride
LDL-C	low density lipoprotein cholesterol
HDL-C	High-density lipoprotein cholesterol
Glu	glucose
PT	prothrombin time
INR	international normalized ratio
APTT	activated partial thromboplastin time
TT	thrombin time
DD	D-dimer
FDPs	fibrinogen/fibrin degradation products
uRBC	urine red blood cell
WBC	white blood cell
NEU	neutrophil
LYM	lymphocyte
RBC	red blood cell
PLT	platelet
HGB	Hemoglobin
CRP	C-reactive protein
C3	complement 3



Figure S1. The standard curves obtained for quantifying immunoglobulins using our high throughput serum microarray.



Figure S2. Inter-assay correlation of serological IgA detection using serum microarray.



Figure S3. Influence of printing location on the reproducible detection of immunoglobulin proteins.



**Figure S4 Specificity of eight anti-human immunoglobin antibodies.** SNR: signal to noise ratio.



Figure S5. Network analysis of the immunoglobulin proteome correlations in different glomerular diseases. The Pearson's or Spearman's correlation coefficient

was calculated between two variables according to their normality as described in the Methods section.



Figure S6. Correlation analysis of the immunoglobulin proteome in different glomerular diseases.



Figure S7. Non-hierarchical clustering analyses of the correlations between any two variables of the immunoglobulin proteome and clinical data in healthy controls. The rainbow color from blue to red corresponds to the correlation between two variables from low to high, respectively.



Figure S8. Non-hierarchical clustering analyses of the correlations between any two variables of the immunoglobulin proteome and clinical data in IgAN patients. The rainbow color from blue to red corresponds to the correlation between two variables from low to high, respectively.



**Figure S9. Non-hierarchical clustering analyses of the correlations between any two variables of the immunoglobulin proteome and clinical data in IMN patients.** The rainbow color from blue to red corresponds to the correlation between two variables from low to high, respectively.



Figure S10. Non-hierarchical clustering analyses of the correlations between any two variables of the immunoglobulin proteome and clinical data in MCN patients. The rainbow color from blue to red corresponds to the correlation between two variables from low to high, respectively.



Figure S11. Non-hierarchical clustering analyses of the correlations between any two variables of the immunoglobulin proteome and clinical data in FSGS patients. The rainbow color from blue to red corresponds to the correlation between two variables from low to high, respectively.



**Figure S12.** Non-hierarchical clustering analyses of the correlations between any **two variables of the immunoglobulin proteome and clinical data in DN patients.** The rainbow color from blue to red corresponds to the correlation between two variables from low to high, respectively.



Figure 13. Non-hierarchical clustering analyses of the correlations between any two variables of the immunoglobulin proteome and clinical data in LN patients. The rainbow color from blue to red corresponds to the correlation between two variables from low to high, respectively.



Figure S14. Non-hierarchical clustering analyses of the correlations between any two variables of the immunoglobulin proteome and clinical data in HSPN patients. The rainbow color from blue to red corresponds to the correlation between two variables from low to high, respectively.



Figure S15. Non-hierarchical clustering analyses of the correlations between any two variables of the immunoglobulin proteome and clinical data in ANCA-AG patients. The rainbow color from blue to red corresponds to the correlation between two variables from low to high, respectively.



Figure S16 Validation correlation between the expression of serum IgG and HbA1c in DN patients.

Table S2. Demographic and clinical information of DN patie	ents
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Parameters	DN patients
Gender(male/female)	14/7
Age (year)	52.00±8.73
FBG (mmol/L)	6.45 (4.68,10.66)
HbA1c (%)	8.03±1.67
IgG (g/L)	9.02±2.14
Cr (µmol/L)	108.6 (87.5,172.9)
Cys-C (mg/L)	1.89 (1.34,2.45)
eGFR (mL/min/1.73m <sup>2</sup> )	55.94 (27.00,75.77)

DN: diabetic nephropathy, FBG: Fasting blood glucose, Cr: creatinine, Cys-C: cystatin C, eGFR: estimated glomerular filtration.