SUPPLEMENTARY MATERIAL

379 genes in hereditary kidney disease panel v18						
ACE	CA2	DGAT1	**GSN**	MAGED2	**ROBO2**	TCTEX1D2
ACTG2	CACNA1H	**DGKE**	GUCY2C	**MAGI2**	RPGRIP1	TCTN1
ACTN4	CACNA1S	DMP1	HAAO	**MAP7D3**	**RPGRIP1L**	TCTN2
ADAMTS13	CASR	DNAJB11	**HNF1B**	**MAPKBP1**	**RRM2B**	TCTN3
ADCK3	CC2D2A	DST	HNF4A	MET	**SALL1**	THBD
ADCK4	CCDC114	**DSTYK**	**HOGA1**	MKKS	SALL4	TMEM104
AGT	**CD151**	DYNC2H1	HOXD13	MKS1	SARS2	TMEM107
AGTR1	**CD2AP**	DYNC2LI1	HPRT1	**MUC1**	**SCARB2**	TMEM138
AGXT	**CD46**	DZIP1L	**HPSE2**	**MYH11**	SCLT1	TMEM216
AHI1	CDKN1C	EGF	HSD11B2	**MYH9**	SCN11A	TMEM231
ALDOB	CEP120	EHHADH	IFT122	**MYO1E**	SCN4A	TMEM237
ALG1	**CEP164**	**EMP2**	IFT140	MYO5B	SCNN1A	**TMEM67**
ALG8	**CEP290**	ENPP1	IFT172	NEK1	SCNN1B	**TNXB**
ALMS1	CEP41	EPCAM	**IFT27**	**NEK8**	SCNN1G	TP53RK
AMN	CEP83	EVC	IFT43	NEUROG3	**SDCCAG8**	TPRKB
ANKS3	**CFB**	EVC2	IFT52	NGF	SDHB	**TRAF3IP1**
ANKS6	**CFH**	**EYA1**	IFT57	**NOTCH2**	SEC61A1	**TRAP1**
ANLN	CFHR1	FAH	IFT80	**NPHP1**	SEC61B	TRIM32
ANO1	CFHR2	FAHD2A	**IFT81**	**NPHP3**	SEC63	**TRPC6**
AP2S1	CFHR3	FAM134B	IKBKAP	**NPHP4**	**SGPL1**	TRPM6
APOA1	CFHR4	FAM20A	**INF2**	**NPHS1**	SIX1	TSC1
APOL1	**CFHR5**	FAM58A	INPP5E	**NPHS2**	SIX2	TSC2
APRT	**CFI**	**FAN1**	**INVS**	NR3C1	**SIX5**	**TTC21B**
AQP2	CHD1L	**FAT1**	**IQCB1**	NR3C2	SLC12A1	TTC8
ARHGAP24	**CHD7**	FBXL4	**ITGA3**	**NUP107**	SLC12A3	**UMOD**
ARHGDIA	CHRM3	**FGA**	**ITGA8**	**NUP205**	SLC16A12	UPK3A
ARL13B	**CLCN5**	FGF20	ITGB4	**NUP93**	SLC22A12	UQCC2
ARL6	CLCNKA	FGF23	**JAG1**	**NXF5**	SLC26A3	VDR
ARSA	CLCNKB	FGF8	KAL1	**OCRL**	SLC2A2	VHL
ATP6V0A4	CLDN16	FGFR1	**KANK1**	**OFD1**	SLC2A9	**VIPAS39**
ATP6V1B1	CLDN19	FH	**KANK2**	**OSGEP**	SLC34A1	**VPS33B**
ATP7B	CNNM2	FLCN	**KANK4**	**PAX2**	SLC34A3	WDPCP
ATXN10	COL4A1	**FN1**	KCNJ1	PAX8	SLC36A2	**WDR19**
AVP	**COL4A3**	**FOXC2**	KCNJ10	**PBX1**	SLC37A4	WDR34
AVPR2	**COL4A4**	FOXF1	KCNJ5	PCBD1	SLC3A1	WDR35
B2M	**COL4A5**	**FRAS1**	**KIAA0556**	PDE6D	**SLC41A1**	WDR60
B9D1	**COQ2**	**FREM1**	**KIAA0586**	**PDSS1**	**SLC4A1**	WDR73
B9D2	COQ4	**FREM2**	KIF14	**PDSS2**	SLC4A4	WNK1
BBIP1	**COQ6**	FXYD2	KIF7	PHEX	SLC5A2	WNK4
BBS1	COQ7	G6PC	KL	**PKD1**	SLC6A19	WNT4
BBS10	COQ9	GALNT3	KLHL3	**PKD2**	SLC6A20	**WT1**
BBS12	COX10	GALT	KYNU	**PKHD1**	**SLC7A7**	XDH

BBS2	CPT2	GANAB	LAGE3	**PLCE1**	SLC7A9	**XPNPEP3**
BBS4	**CRB2**	**GATA3**	**LAMB2**	**PMM2**	SLC9A3	XPO5
BBS5	CSPP1	GDNF	LCAT	PODXL	SLC9A3R1	YRDC
BBS7	**CTNS**	**GLA**	**LMNA**	PRDM12	SLIT2	ZEB2
BBS9	**CUBN**	GLI3	LMOD1	PRKCSH	**SMARCAL1**	ZIC3
BCS1L	CUL3	**GLIS2**	**LMX1B**	PSAP	**SOX17**	**ZMPSTE24**
BICC1	**CYP11B1**	GLIS3	LPP	PTEN	SPINT2	**ZNF423**
BMP4	**CYP11B2**	GNA11	**LRIG2**	PTH1R	SPTLC1	
BMPR2	CYP17A1	GPC3	LRP2	**PTPRO**	SPTLC2	
BSND	CYP24A1	GPC5	LRP4	PYGM	STRA6	
C2CD3	**DACT1**	GREB1L	**LYZ**	**REN**	STX16	
C3	**DCDC2**	**GRHPR**	LZTFL1	RET	TBC1D1	
C5orf42	DDX59	**GRIP1**	**MAFB**	**RMND1**	**TBX18**	

Supplementary Figure 1. The 379 genes that are on the hereditary kidney disease panel v18 at University Medical Center Utrecht. Bold genes are also on the CKD-Y panel v18.

495 genes in hereditary kidney disease panel v21						
ACE	***CACNA1H***	**DGAT1**	**GREB1L**	***LRIG2***	**PRDM12**	**STRA6**
ACTA2	**CACNA1S**	***DGKE***	GREM1	LRP10	PRDX1	STRADA
ACTG2	**CASR**	DHCR7	***GRHPR***	**LRP2**	**PRKCSH**	***STX16***
ACTN4	CBWD1	DICER1	***GRIP1***	**LRP4**	**PSAP**	SYNPO
ADAMTS13	CBY1	***DLC1***	***GSN***	LRP5	**PTEN**	**TBC1D1**
ADAMTS9	***CC2D2A***	**DMP1**	**GUCY2C**	***LYZ***	**PTH1R**	***TBC1D8B***
ADCK3	**CCDC114**	***DNAJB11***	**HAAO**	***LZTFL1***	***PTPRO***	***TBX18***
ADCY10	CCDC28B	DOCK4	***HNF1B***	***MAFB***	**PYGM**	TBX6
AGK	***CD151***	**DST**	**HNF4A**	**MAGED2**	RBM8A	**TCTEX1D2**
AGT	***CD2AP***	***DSTYK***	***HOGA1***	***MAGI2***	***REN***	***TCTN1***
AGTR1	***CD46***	**DYNC2H1**	HOXA10	***MAP7D3***	RERE	***TCTN2***
AGXT	CDC73	**DYNC2LI1**	HOXA13	***MAPKBP1***	**RET**	***TCTN3***
AHI1	***CDK20***	**DZIP1L**	**HOXD13**	**MET**	RICTOR	**THBD**
ALDOB	**CDKN1C**	***E2F3***	**HPRT1**	***MKKS***	***RMND1***	**TMEM104**
ALG1	CENPF	**EGF**	***HPSE2***	***MKS1***	ROBO1	***TMEM107***
ALG5	***CEP104***	**EHHADH**	HRAS	***MMACHC***	***ROBO2***	***TMEM138***
ALG6	**CEP120**	ELP1	***HSD11B2***	***MOCOS***	**RPGRIP1**	***TMEM216***
ALG8	***CEP164***	***EMP2***	HSPA6	***MTR***	***RPGRIP1L***	***TMEM231***
ALG9	***CEP290***	**ENPP1**	***HYLS1***	***MTRR***	RRAGD	***TMEM237***
ALMS1	***CEP41***	**EPCAM**	ICK	***MTX2***	***RRM2B***	TMEM260
ALPL	CEP55	ERCC6	**IFT122**	***MUC1***	***SALL1***	***TMEM67***
AMN	***CEP83***	ERCC8	**IFT140**	***MYH11***	**SALL4**	***TMEM72***
ANKFY1	***CFB***	**EVC**	**IFT172**	***MYH9***	***SARS2***	***TNS2***
ANKS3	***CFH***	**EVC2**	***IFT27***	MYLK	***SCARB2***	***TNXB***
ANKS6	***CFHR1***	EVX1	**IFT43**	***MYO1E***	**SCLT1**	***TOGARAM1***
ANLN	***CFHR2***	EXOC8	**IFT52**	**MYO5B**	**SCN11A**	***TP53RK***
ANOS1	***CFHR3***	***EYA1***	**IFT57**	NAALADL2	**SCN4A**	TP63
AP2S1	***CFHR4***	**FAH**	***IFT74***	NCAPG2	***SCNN1A***	***TPRKB***
APOA1	***CFHR5***	**FAHD2A**	**IFT80**	**NEK1**	***SCNN1B***	***TRAF3IP1***
APOE	***CFI***	**FAM134B**	***IFT81***	***NEK8***	***SCNN1G***	***TRAP1***
APOL1	**CHD1L**	***FAM149B1***	***IL1RAP***	NEU1	***SDCCAG8***	***TRIM32***
APRT	***CHD7***	**FAM20A**	***INF2***	**NEUROG3**	**SDHB**	***TRIM8***
AQP2	**CHRM3**	FAM20C	***INPP5E***	**NGF**	***SEC61A1***	***TRPC6***
ARHGAP24	CHRNA3	**FAM58A**	INTU	***NOS1AP***	**SEC61B**	**TRPM6**
ARHGDIA	***CLCN2***	***FAN1***	***INVS***	***NOTCH2***	**SEC63**	TRPM7
ARL13B	***CLCN5***	***FAT1***	***IQCB1***	***NPHP1***	***SGPL1***	**TSC1**
ARL3	**CLCNKA**	**FBXL4**	ISL1	***NPHP3***	***SIX1***	**TSC2**
ARL6	**CLCNKB**	***FGA***	***ITGA3***	***NPHP4***	**SIX2**	TSHZ3
ARMC9	CLDN10	**FGF20**	***ITGA8***	***NPHS1***	***SIX5***	***TTC21B***
ARSA	**CLDN16**	**FGF23**	***ITGB4***	***NPHS2***	SKAP2	***TTC8***
ATP1A1	**CLDN19**	**FGF8**	***ITSN1***	NPNT	**SLC12A1**	TXNDC15
ATP6V0A4	**CNNM2**	**FGFR1**	***ITSN2***	***NR3C1***	**SLC12A3**	***UMOD***
ATP6V1B1	**COL4A1**	**FH**	***JAG1***	***NR3C2***	**SLC16A12**	**UPK3A**
ATP7B	***COL4A3***	**FLCN**	***KANK1***	NRAS	SLC19A2	**UQCC2**

ATXN10	***COL4A4***	***FN1***	***KANK2***	***NUP107***	***SLC22A12***	**VDR**
AVIL	***COL4A5***	***FOXC2***	***KANK4***	***NUP133***	SLC26A1	**VHL**
AVP	***COQ2***	**FOXF1**	***KATNIP***	***NUP160***	**SLC26A3**	***VIPAS39***
AVPR2	**COQ4**	FOXI1	**KCNJ1**	***NUP205***	**SLC2A2**	***VPS33B***
B2M	***COQ6***	***FRAS1***	**KCNJ10**	***NUP85***	***SLC2A9***	***WDPCP***
B9D1	**COQ7**	***FREM1***	***KCNJ5***	***NUP93***	**SLC34A1**	***WDR19***
B9D2	***COQ8B***	***FREM2***	KCTD1	***NXF5***	**SLC34A3**	**WDR34**
BBIP1	**COQ9**	**FXYD2**	KCTD3	***OCRL***	**SLC36A2**	***WDR35***
BBS1	**COX10**	**G6PC**	***KIAA0586***	***OFD1***	**SLC37A4**	***WDR60***
BBS10	***CPLANE1***	**GALNT3**	KIAA0753	***OSGEP***	***SLC3A1***	WDR72
BBS12	**CPT2**	**GALT**	**KIF14**	***PAX2***	***SLC41A1***	***WDR73***
BBS2	***CRB2***	***GANAB***	***KIF3B***	**PAX8**	***SLC4A1***	***WNK1***
BBS4	***CSPP1***	***GAPVD1***	**KIF7**	***PBX1***	**SLC4A4**	***WNK4***
BBS5	***CTNS***	***GATA3***	***KIRREL1***	**PCBD1**	**SLC5A2**	**WNT4**
BBS7	***CUBN***	***GATM***	**KL**	***PCM1***	**SLC6A19**	WNT9B
BBS9	***CUL3***	**GDNF**	***KLHL3***	**PDE6D**	**SLC6A20**	***WT1***
BCS1L	***CYP11B1***	GDF6	KRAS	***PDSS1***	***SLC7A7***	***XDH***
BICC1	***CYP11B2***	GFRA1	**KYNU**	***PDSS2***	***SLC7A9***	***XPNPEP3***
BMP4	***CYP17A1***	***GLA***	**LAGE3**	**PHEX**	**SLC9A3**	**XPO5**
BMPR2	**CYP24A1**	**GLI3**	LAMA5	***PIBF1***	**SLC9A3R1**	***YRDC***
BNC2	CYP27B1	***GLIS2***	***LAMB2***	***PKD1***	**SLIT2**	**ZEB2**
BSND	CYP2R1	**GLIS3**	**LCAT**	***PKD2***	SLIT3	**ZIC3**
C2CD3	CYP3A4	**GNA11**	LHX1	***PKHD1***	***SMARCAL1***	***ZMPSTE24***
C3	***DAAM2***	GNAS	***LMNA***	***PLCE1***	***SOX17***	ZNF365
C8ORF37	***DACT1***	GON7	**LMOD1**	***PMM2***	**SPINT2**	***ZNF423***
CA2	***DCDC2***	**GPC3**	***LMX1B***	***POC1B***	**SPTLC1**	
CACNA1D	**DDX59**	**GPC5**	**LPP**	***PODXL***	**SPTLC2**	

Supplementary Figure 2. The 495 genes that are on the hereditary kidney disease panel v21 at University Medical Center Utrecht. Bold genes are also hereditary kidney disease panel v18 and italic genes are also on the CKD-Y panel v21.

Supplementary Table 1. Questionnaire for participants (original version is in Dutch)

Number	Question	Answer possibilities
General questions		
1	What is your country of birth?	Open
2	What is the country of birth of your maternal grandmother?	Open
3	What is the country of birth of your maternal grandfather?	Open
4	What is the country of birth of your paternal grandmother?	Open
5	What is the country of birth of your paternal grandfather?	Open
Medical health and current health complaints		
6	At which age did you get the diagnosis chronic kidney disease?	Open
7	Did you undergo dialysis in the past or are you currently on dialysis?	Yes/no/unknown
8	Did you undergo a kidney transplantation in the past?	Yes/no/unknown
9	Do you have high blood pressure? If you are taking blood pressure-lowering medication and have a normal blood pressure thanks to the medication, you can also fill in "yes".	Yes/no/unknown
10	Have you ever been admitted to the emergency room for high blood pressure?	Yes/no/unknown
11	Are you unable or do you have trouble with sweating?	Yes/no/unknown

12	Do you suffer from heat- or cold intolerance? This means that you have trouble with handling heat or cold.	Yes/no/unknown
13	Have you experienced a burning pain or a feeling of tingling in the hands and/or feet now or in the past?	Yes/no/unknown
13a	If so, did this pain or tingling feeling arise or get worse with fever, exertion, stress, or if the hands or feet became very hot or cold?	Open
14	Do you have dark, red-purple spots in your skin? Especially between your belly button and knees?	Yes/no/unknown
15	Do you have any problems with seeing or any eye complaints?	Yes/no/unknown
15a	If so, what are your problems with seeing and/or eye complaints?	Open
16	Do you have any hearing problems of hearing disabilities?	Yes/no/unknown
16a	If so, what for hearing problems or disabilities do you have?	Open
17	Have you suffered from gout now or in the past?	Yes/no/unknown
18	Have you ever had a stroke (cerebral infraction, brain hemorrhage or TIA)?	Yes/no/unknown
19	Did you ever have a myocardial infarction?	Yes/no/unknown
20	Do you have a heart rhythm disorder?	Yes/no/unknown
20a	If so, which heart rhythm disorder do you have?	Open
21	Do you have a thickening of the heart muscle (hypertrophic cardiomyopathy)?	Yes/no/unknown

22	Do you have health complaints not mentioned in the previous questions?	Yes/no/unknown
22a	If so, which heath complaints do you experience?	Open
Family history		
23	How many biological children, alive or deceased, do you have?	Open
24	Do you (still) have any desire to have children?	Yes/no/unknown
25	How many siblings, alive or deceased, do you have?	Open
26	How many half-brothers and/or half-sisters, alive or deceased, do you have?	Open
27	How many siblings, alive or deceased, does your mother have?	Open
28	How many siblings, alive or deceased, does your father have?	Open
29	Are your grandparents still alive?	Yes/no/unknown
29a	Did one of your grandparents pass away before the age of 50 years?	Yes/no/unknown
30	Are your parents blood relatives (e.g. second cousins)?	Yes/no/unknown
30a	If so, how are your parents related to each other?	Open
31	Are you and your partner blood relatives (e.g. cousins, second cousins)?	Yes/no/I do not have a partner/unknown
31a	If so, how are you and your partner related to each other?	Open
32	Does gout run in your family?	Yes/no/unknown
33	Do you have family members with a high blood pressure at a young age?	Yes/no/unknown
34	Does anyone in your family have an intellectual disability?	Yes/no/unknown

35	Dou you have family members with kidney disease (children, parents, siblings, grandparents, uncles/aunts, cousins, nephews/nieces)?	Yes/no/unknown
35a	If so, how many family members have a kidney disease?	Open
35b	In how many family members if the cause for the kidney disease unknown?	Open
35c	If you know the cause of the kidney disease of other family members, please write down the cause of the kidney disease in this field. If you do not know the cause, you can leave this field empty.	Open
35d	How many family members with a kidney disease have had a kidney transplantation or dialysis?	Open
Final questions		
36	Have you visited a clinical geneticist or have you been referred to a clinical geneticist?	Yes/no/unknown
37	Do you already known the results from genetic testing at the time of completing this questionnaire?	Yes/no/unknown