Supplemental Item 1

We searched the PubMed database for studies published up to January 1st 2020 containing key words on 'PGT' and 'kidney disease', including a list of ~225 known renal disease causing genes (Supplementary Table 1). Studies were selected based on predefined in- and exclusion criteria, namely that they mentioned the presence of familial kidney disease or a known causative mutation leading to the performance of PGT. All studies were assessed by two independent observers and decisions were made based on consensus discussion.

All in all, a total of 14 studies detailing PGT for a known genetic kidney disease were identified, including syndromal conditions such as Fraser syndrome which were not included in our own cohort. These studies cover nine renal indications was performed, leading to 39 unaffected live births in 124 PGT cycles (31% success rate).

Table 3 – Results of 14 studies on preimplantation genetic diagnostics for monogenic kidney disease

Study	**Country**	**Disease**	**Gene(s)**	**Couples counselled (n)**	**Couples who undergo at least one PGT cycle (n)**	**PGT cycles (n)**	**Ongoing pregnancies (>12 weeks GA) (n)**	**Live births from PGT (n)**
Berckmoes *et al.*, 2019[29]	Belgium	ADPKD ARPKD	*PKD1* (n=33) *PKD2* (n=2) PKHD1 (n=9)	N=65	N=45	N=91	N=40 (of which n=2 twin pregnancies)	N=26
Murphy et al, 2018[28]	USA	ADPKD	*PKD1* (n=7)	n=8	n=4	n=2	n=1	n=1

			PKD2 (n=1)					
Li et al, 2017[30]	China	ADPKD	*PKD1*	n=1	n=1	n=1	n=1	n=1
Lu *et al.*, 2013[27]	China	Meckel-Gruber syndrome	*TMEM67*	n=1	n=1	n=1	n=1*	n=1
Altarescu *et al.*, 2012[48]	Israel	Fabry disease	*GLA*	n=2	n=2	n=6	n=2	n=2
Ogur *et al.*, 2011[26]	Poland	Fraser syndrome	*FRAS1*	n=2	n=2	PGT is planned for n=1	N/A	N/A
Lau *et al.*, 2010[25]	USA	ARPKD	*PKHD1*	n=1	n=1	n=1	n=1*	n=1
Obradors *et al.*, 2009[24]	Spain	Von Hippel-Lindau disease	*VHL*	n=1	n=1	n=1	n=1	n=2
Vanneste *et al.*, 2009[23]	Belgium	Neurofibromatosis type 1 Von Hippel-Lindau disease	*NF1 (n=2)* *VHL (n=1)*	n=3	n=3	n=5 n=2	n=0 n=1	n=0 n=2
Altarescu *et al.*, 2008[22]	Israel	Tuberous sclerosis complex	*TSC2*	n=1	n=1	n=1	n=1*	n=1
Gigarel *et al.*, 2008[49]	France	ARPKD	*PKHD1*	n=3	n=3	n=5	n=1	n=1
Renbaum *et al.*, 2007[21]	Israel	Allagile disease	*JAG1*	n=1	n=1	n=1	n=0	n=0
De Rycke *et al.*, 2005[20]	Belgium	ADPKD	*PKD1*	n=4	n=4	n=4	n=2	n=2
Rechitsky *et al.*, 2002[19]	USA	Von Hippel-Lindau disease	*VHL*	n=1	n=1	n=3	n=0	n=0
Total				**n=93**	**n=70**	**n=124**	**n=51**	**n=39**

* Two embryos transferred, case of vanishing twin.

ADPKD=autosomal dominant polycystic kidney disease, ARPKD=autosomal recessive polycystic kidney disease, PGT=preimplantation genetic diagnostics, GA=gestational age, N/A=not applicable, NR=not reported, USA=United States of America