Table 1: Major genetic mutations responsible for familial proteinuric renal diseases.

Genetic locus	Protein coded	Protein function	Phenotype	Treatment
ACTN4	α-Actinin 4	Cell interactions	FSGS, MCD	Resistant to immunosuppression
ARHGAP24	Rho GTPase Activating Protein 24	Inhibits Rac1-dependent membrane ruffling and epithelial woundhealing.	FSGS	Resistant to immunosuppression
CD2AP	CD2 Associated Protein	Links nephrin and podocin to phosphoinositide 3-OH kinase	FSGS	Resistant to immunosuppression
COL4A3	Collagen, Type IV, Alpha 3	Structure of glomerular basal membrane	Alport syndrome	ACE inhibitors
NPHS1	Nephrin	Essential componenet of slit diaphragm	Finnish-type nephrotic syndrome	Resistant to immunosuppression
NPHS2	Podocin	Recruitment of nephrin to slit diaphragm	Familial FSGS	Resistant to immunosuppression
COQ2	Coenzyme Q2	Part of the CoQ10 pathway and encodes the para-hydroxybenzoate-polyprenyltransferase	SRNS	Coenzyme Q10
LAMB2	Laminin Subunit Beta 2	Major laminin component of the glomerular basement membrane	Pierson syndrome	Resistant to immunosuppression
TRPC6	Transient Receptor Potential Cation Channel Subfamily C Member 6	Contribute to calcium entry in podocytes	Familial FSGS	Sildenafil
ITGA3	Integrin Subunit Alpha 3	Podocyte–GBM interaction	FSGS	Resistant to immunosuppression

FSGS: focal segmental glomerulosclerosis, GMB: glomerular basal membrane, MCD: minimal change disease, SRNS: steroid resistant nephrotic syndrome.