Supplemental Table 1. List of mutations in large animal models of inherited retinal disease and references.

Mechanism	Gene	Species	Mutation	Reference
Phototransduction	*RHO*	dog pig pig pig	c. 11C>G, p.Thr4Arg p.Pro23His c.1040C>T, p.Pro347Leu p.Pro347Ser	[1] [2] [3] [4]
	PDE6A	dog	c.1939delA, p.Asn616ThrfsTer39	[5,6]
	PDE6B	dog	c.2420G>A, p.Trp807Ter; c.2449_2450insTGAAGTCC; p.Lys816Terfs817 c.2404_2406delAAC, p.Asn802del	[7] [8] [9]
	PDE6C	NHP	c.1694G>A, p.Arg565Gln	[10]
	SAG	dog	c.1216T>C; p.Ter406extArg25	[11]
Visual Cycle	*ABCA4*	dog	c.4176insC, p.Phe1393LeufsTer3	[12]
	RPE65	dog	c.487_490delAAGA; p.Lys154LeufsTer53	[13]
	RDH5	cat	unpublished	
Channelopathies/channel related	*CNGA1*	dog	c.1752_1755delAACT, p.Thr584SerfsTer9	[14]
	CNGB1	dog	c.2387delA;2389_2390insAGCTAC, p.Ser791ArgfsTer2	[15]
	CNGA3	dog dog sheep sheep	c.1270C>T; p.Arg424Trp c.1931_1933delTGG, p.Val644del p.Arg236Ter p.Gly540Ser	[16] [17] [18]
	CNGB3	dog	c.784G>A; p.Asp262Asn CFA29:g.35,699,378-36,104,197del, c.0	[19] [20]
	BEST1	dog	c.73C>T, p.Arg25Ter; c.482G>A, p.Gly161Asp; c.C1388del and c.1466G>T, p.Pro463fs and p.Gly489Val	[21] [22]

Ciliopathies	*BBS4*	dog	c.58A->T, p.Lys20Ter	[23]
	BBS7	NHP	c.160delG, p.Ala54GlnfsTer18	[24]
	c2orf71	dog	c.3149_3150insC, p.Lys1051ValfsTer91	[25]
	CCDC66	dog	c.521_522insA, p.Asn174LysfsTer2	[26]
	CEP290	cat	c.6966+9T>G, p.Ile2323AlafsTer3	[27]
	FAM161A	dog	c.1758-15_1758-16ins238, p.Ser588MetfsTer14	[28]
	NPHP4	dog	c.462_526del, p.Leu155LysfsTer2	[29]
	NPHP5(IQCB1)	dog cat	c.952-953insC, p.Ser319IlefsTer13 c.1282delCT, p.Leu428Ter	[9] [30]
	RPGR	dog	c.1084-1085delGA, c.1028-1032delGAGAA CFAX:g. 33106747+190-33102324del	[31] [32]
	RGRIP1	dog	CFA15:g.8228_8229insA29GGAAGCAACAG GATG	[33]
	TTC8	dog	c.669delA, p.Lys223ArgfsTer15	[34]
Photoreceptor development	*CRX*	cat	c.546delC, p.Pro185LysfsTer2	[35]
	STK38L	dog	c.299_300ins[218;285_299]; p.Lys63_Glu103del	[36]
Photoreceptor to Bipolar Cell	*LRIT3*	dog	c.762_763delG, p.Lys246AsnfsTer5	[37]
	TRPM1	horse	ECA1g.108,297,929_108,297,930 ins1378	[38]
	Whippet	dog	unpublished	
Structural/Other	*ADAM9*	dog	c.1592_1881del p.Lys531AsnfsTer3	[39,40]
	AIPL1	cat	c.577C>T, p.Arg193Ter	[41]
	MERTK	dog	CFA17:g.36338057_36338058ins[(6401);36338043-36338057]	[42]

	PRCD	dog	c.5G>A, p.~~C2Y~~Cys2Tyr	[43]
	RD3	dog	c.418_419ins[22]~~, p.Pro139AlafsTer69~~	[44,45]
	NECAP1	dog	c.544G>A, p.Gly182Arg	[46]
	PPT1	dog	CFA15:g.[2,866,454_2,877,574dup; 2,874,661_2,875,048con2,877,563-2,877,607inv]	[47]
	SLC4A3	dog	c.2601_2602insC, p.Glu868ArgfsTer104	[48]

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