Supplementary Table S1. Details of Gene Variants in Patients with Retinitis Pigmentosa.

Patient No.	Family No.	Gender	Age	Gene	Inheritance	Gene-related mechanisms	Genotype	Mutations	Protein alteration	gnomAD allele frequency	Variant pathogenicity classification	Missense variant prediction (SIFT)	Splice site prediction (SpliceAI)
P1	F1	Male	19	*USH2A*	AR	Cilium	compound heterozygote	NM_206933.2:c.99_100insT	p.Arg34Serfs*41	0.000004	P	-	Polymorphism
								NM_206933.2:EX37-EX38 Dup		-	LP	-	-
P2	F2	Female	62	*USH2A*	AR	Cilium	compound heterozygote	NM_206933.2:c.11156G>A	p.Arg3719His	0.000056	P	Deleterious	Polymorphism
								NM_206933.2:c.13414G>A	p.Gly4472Ser	-	VUS	Deleterious	Polymorphism
P3	F3	Male	42	*USH2A*	AR	Cilium	compound heterozygote	NM_206933.2:c.11156G>A	p.Arg3719His	0.000056	P	Deleterious	Polymorphism
								NM_206933.2:EX4-EX15 Del		-	P	-	-
P4	F4	Male	43	*USH2*	AR	Cilium	compound	NM_2069		-	P	-	Deleterious

				A			heterozygote	33.2:c.11549-1G>A					
								NM_206933.2:c.9958G>C	p.Gly3320Arg	-	LP	Deleterious	Deleterious
P5	F5	Female	67	*EYS*	AR	Cilium	compound heterozygote	NM_001142800.1:c.6416G>A	p.Cys2139Tyr	0.000144	P	Deleterious	Polymorphism
								NM_001142800.1:c.6385G>A	p.Asp2129Asn	-	VUS	Polymorphism	Polymorphism
P6	F6	Male	39	*EYS*	AR	Cilium	homozygous	NM_001142800.1:c.1798_1800delTTGinsC	p.Val602Cysfs*4	-	P	-	-
P7	F7	Female	49	*SNRNP200*	AD	RNA Splicing	heterozygote	NM_014014.4:c.3260C>T	p.Ser1087Leu	0.000004	P	Deleterious	Polymorphism
P8	F7	Female	25	*SNRNP200*	AD	RNA Splicing	heterozygote	NM_014014.4:c.3260C>T	p.Ser1087Leu	0.000004	P	Deleterious	Polymorphism
P9	F8	Male	30	*RHO*	AD	Phototransduction	heterozygote	NM_000539.3:c.655_663delATCTTTTT	p.Ile219_Phe221del	-	LP	-	-

								C					
P10	F9	Female	49	*IMPDH1*	AD	Metabolism	heterozygote	NM_000883.3:c.174_183delGACGACACCC	p.Thr59Valfs*29	-	VUS	-	-
P11	F10	Female	42	*RP1L1*	AR	Cilium	compound heterozygote	NM_178857.5:c.4700G>A	p.Arg1567His	0.000012	VUS	Deleterious	Polymorphism
								NM_178857.5:c.149G>A	p.Arg50His	0.000085	VUS	Deleterious	Polymorphism
								NM_178857.5:c.32C>T	p.Pro11Leu	0.000786	VUS	Deleterious	Polymorphism
P12	F11	Male	30	*RDH12*	AR	Metabolism	compound heterozygote	NM_152443.2:c.437T>A	p.Val146Asp	0.000012	P	Deleterious	Polymorphism
								NM_152443.2:c.193C>T	p.Arg65*	0.000016	P	-	Polymorphism
P13	F12	Male	28	*CNGB1*	AR	Phototransduction	compound heterozygote	NM_001297.4:c.2284C>A	p.Arg762Ser	0.000004	LP	Deleterious	Polymorphism

								NM_001297.4:c.2284C>T	p.Arg762Cys	0.000004	LP	Deleterious	Polymorphism
P14	F13	Male	35	*CNGA1*	AR	Phototransduction	homozygous	NM_000087.3:c.1537G>A	p.Gly513Arg	0.000008	LP	Deleterious	Polymorphism
P15	F14	Male	52	*CEP290*	AR	Cilium	compound heterozygote	NM_025114.3:c.1666_1667insA	p.Ile556Asnfs*20	0.001936	P	-	Polymorphism
								NM_025114.3:c.503G>A	p.Arg168His	0.000289	VUS	Deleterious	Polymorphism
P16	F15	Male	37	*ALMS1*	AR	Cilium	compound heterozygote	NM_001378454:c.812C>T	p.Ser271Leu	0.00028	VUS	Deleterious	-
								NM_001378454:c.12163C>G	p.Arg4055Gly	0.00038	VUS	Deleterious	-