

Non-Invasive Prenatal Testing of Single Gene Disorders

Screens for pathogenic/ likely pathogenic variants (SNVs, InDels < 3bp) for 66 autosomal dominant or X-linked disorders within 34 genes

Intellectual / Developmental Disabilities (22)

Disorders	Genes	Incident/Prevalence
CHARGE syndrome	CHD7	1-9/ 100 000
Intellectual developmental disorder, autosomal dominant 5	SYNGAP1	--
Bainbridge-Ropers syndrome	ASXL3	<1/ 1 000 000
Coffin-Siris syndrome 1	ARID1B	<1/ 1 000 000
Rett syndrome	MECP2	1-9/ 100 000
Developmental delay with variable intellectual impairment and behavioral abnormalities	TCF20	--
Kleefstra syndrome 2	KMT2C	<1/ 1 000 000
Intellectual developmental disorder, autosomal dominant 52	ASH1L	--
Intellectual developmental disorder, autosomal dominant 7	DYRK1A	<1/ 1 000 000
Developmental and epileptic encephalopathy 4	STXBP1	1-9/ 100 000
White-Sutton syndrome	POGZ	<1/ 1 000 000
Developmental and epileptic encephalopathy 27	GRIN2B	1-9/ 100 000
Intellectual developmental disorder, autosomal dominant 6, with or without seizures	GRIN2B	--
Developmental and epileptic encephalopathy 2	CDKL5	1-9/ 100 000
Developmental and epileptic encephalopathy 94	CHD2	--
Menke-Hennekam syndrome 1	CREBBP	--
Rubinstein-Taybi syndrome 1	CREBBP	1-9/ 100 000
Helsmoortel-van der Aa syndrome	ADNP	1-9/ 100 000
Rett syndrome, congenital variant	FOXG1	--
Cornelia de Lange syndrome 1	NIPBL	1-9/ 100 000
Intellectual developmental disorder, autosomal dominant 43	HIVEP2	--
Mowat-Wilson syndrome	ZEB2	1-9/ 100 000

Structural Abnormalities / Others (44)

Disorders	Genes	Incident/Prevalence
Developmental and epileptic encephalopathy 6B, non-Dravet	SCN1A	--
Dravet syndrome	SCN1A	1-9/ 100 000
Generalized epilepsy with febrile seizures plus, type 2/ Febrile seizures, familial, 3A	SCN1A	--
Migraine, familial hemiplegic, 3	SCN1A	1-5/ 10 000

Disorders	Genes	Incident/Prevalence	
Caffey disease	COL1A1	3/ 1 000	
Combined osteogenesis imperfecta and Ehlers-Danlos syndrome 1	COL1A1	<1/ 1 000 000	
Combined osteogenesis imperfecta and Ehlers-Danlos syndrome 2	COL1A2		
Osteogenesis imperfecta, type I	COL1A1	1-5/ 10 000	
Osteogenesis imperfecta, type II	COL1A1		
	COL1A2		
Osteogenesis imperfecta, type III	COL1A1		
Osteogenesis imperfecta, type IV	COL1A1	1-5/ 10 000	
	COL1A2		
Ehlers-Danlos syndrome, arthrochalasia type, 1	COL1A1	--	
Ehlers-Danlos syndrome, arthrochalasia type, 2	COL1A2		
Tuberous sclerosis 1	TSC1	1-9/ 100 000	
Tuberous sclerosis 2	TSC2		
Achondroplasia	FGFR3	1-9/ 100 000	
Crouzon syndrome with acanthosis nigricans	FGFR3	1-9/ 1 000 000	
Hypochondroplasia	FGFR3	1-9/ 100 000	
Muenke syndrome	FGFR3	1-9/ 100 000	
Achondroplasia, severe, with developmental delay and acanthosis nigricans	FGFR3	<1/ 1 000 000	
Thanatophoric dysplasia, type I	FGFR3	1-9/ 100 000	
Thanatophoric dysplasia, type II	FGFR3		
Lacrimoauriculodentodigital syndrome 1	FGFR2	<1/ 1 000 000	
Lacrimoauriculodentodigital syndrome 2	FGFR3		
Antley-Bixler syndrome without genital anomalies or disordered steroidogenesis	FGFR2	--	
Apert syndrome	FGFR2	1-9/ 100 000	
Beare-Stevenson cutis gyrata syndrome	FGFR2	<1/ 1 000 000	
Bent bone dysplasia syndrome 1	FGFR2	<1/ 1 000 000	
Pfeiffer syndrome/ Craniofacial-skeletal-dermatologic dysplasia	FGFR2	1-9/ 100 000	
Crouzon syndrome	FGFR2	1-9/ 1 000 000	
Jackson-Weiss syndrome	FGFR2	--	
Saethre-Chatzen syndrome	FGFR2	1-9/ 100 000	
Kabuki syndrome 1	KMT2D	1-9/ 100 000	
LEOPARD syndrome 1	PTPN11	--	
LEOPARD syndrome 2	RAF1		
LEOPARD syndrome 3	BRAF		
Noonan syndrome 1	PTPN11	1-5/ 10 000	
Noonan syndrome 3	KRAS		
Noonan syndrome 4	SOS1		
Noonan syndrome 5	RAF1		
Noonan syndrome 7	BRAF		
Noonan syndrome 8	RIT1		
Cardiofaciocutaneous syndrome 1	BRAF		1-9/ 1 000 000
Cardiofaciocutaneous syndrome 2	KRAS		

All incident/ prevalence are obtained from Orphanet, MedlinePlus, and others.

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