



DEPARTMENT OF CLINICAL GENETICS  
LABORATORY FOR DIAGNOSTIC GENOME ANALYSIS - LDGA  
**REQUISITION FORM FOR MOLECULAR  
GENETIC TESTING**

The LDGA is NEN-EN-ISO 15189:2012 accredited by the Dutch Accreditation Council. The scope for accreditation number M007 can be found at [www.rva.nl](http://www.rva.nl).



Surname and Initials\*

Name spouse

Street name and number\*

Postal code and city\* Country\*

Date of birth\* (yyyy/mm/dd)

Sex\*

**\* REQUIRED FIELDS**

Patient information / Fill out completely

**Mailaddress:**

LDGA

LUMC - building 2, Postal zone S-06-P  
Einthovenweg 20, 2333 ZC Leiden  
P.O. box 9600, 2300 RC Leiden  
The Netherlands

**Administration:**

Tel. : +31 71 5269800  
Fax : +31 71 5268276  
Email : [ldga@lumc.nl](mailto:ldga@lumc.nl)  
Website : [www.lumc.nl/klingen](http://www.lumc.nl/klingen)

**PROCEDURE:** Always consult us prior to sending material other than blood or DNA. Tel: +31715269800.

All materials must be clearly labelled with number, name and date of birth of the patient.

**MATERIAL:** **DNA TESTING:** 8-10 ml EDTA blood (neonates ≥ 2.5 ml), DNA (at least 15 µg), tissue, chorionic villi (20 mg) or amniotic fluid (15 ml). *Please note for FSHD & Hemophilia 2 tubes EDTA blood.*

**RNA TESTING:** Use the "RNA ANALYSIS form".

**TRANSPORT:** EDTA blood and DNA can be sent at room temperature by post to the address above. Use an overnight courier for priority samples and cooled material.

**FORM:** Please fully complete the form (**one form per person**).

**PATIENT INFORMATION:** Please give to the patient, this can be found at <https://www.lumc.nl/org/klinische-genetica/patientenzorg/aanvragen-laboratoriumdiagnostiek/?setlanguage=English&setcountry=en>

For diagnostic turnaround times, our current criteria for diagnostic requests and opening hours, see our website.

**Due to incomplete applications there is a possibility of delay**

REFERRING PHYSICIAN :	Telephone :
Hospital/Institution :	Department :
Address :	Your ref. no. :
Postal code / City :	Email :
Date of collection :	

**REASON FOR REFERRAL**

- |   |   |
|---|---|
| <input type="checkbox"/> carrier testing (for recessive diseases only)  | <input type="checkbox"/> prenatal testing ( <b>only after consultation</b> )    |
| <input type="checkbox"/> confirmation / exclusion of clinical diagnosis | <input type="checkbox"/> request for interpretation of variant in index patient |
| <input type="checkbox"/> predictive / presymptomatic testing            | <input type="checkbox"/> storage, reason:                                       |
| <input type="checkbox"/> testing for family members                     |   |

**GENE(S) / TEST:**

(see next pages for overview)

Did you previously send us material from this patient, a family member or spouse?

NO       YES (patient)       YES (family members, fill in table)

Known mutation: yes:

LDGA Family number (F-No.):

**CLINICAL INFORMATION** and/or **PEDIGREE** (draw pedigree after print or add separately, indicate index with arrow):

Information of tested family members:

No. In pedigree	Name (full)	Date of birth	Sex	Relation to current patient

**TO BE FILLED OUT BY PATIENT SECRETARY:**

Datum ontvangst:

Paraaf ontvangst:

Materiaal en aantal: Bloed / DNA / Vlokken / Vruchtwater/Weefsel

Familienummer:

Alleen formulier

## Gene panels

See next pages for request of individual genes

- Breast and ovary cancer panel
  - Cerebral angiopathies / adult-onset leukoencephalopathies (including CADASIL)
  - Coffin-Siris / Nicolaides-Baraitser syndrome
  - Colorectal carcinoma
  - Episodic Ataxia
  - FAMMM (Familial Atypical Multiple Mole-Melanoma)
  - Familial pancreatic carcinoma
  - Short stature, basic gene panel
  - LYNCH syndrome
  - Migraine, familial hemiplegic
  - MODY (Maturity Onset Diabetes of the Young)
  - Lipodystrophy
  - Muscular dystrophies / myopathies
  - Paragangliomas and/or pheochromocytomas
  - Polyglutamin repeat disorders
  - Polyposis coli, adenomatous
  - Skeletal Muscle Channelopathies
- |   |  |
|---|--|
| <input type="checkbox"/> HBOC panel     | <input type="checkbox"/> CHA panel       |
| <input type="checkbox"/> CSS panel      | <input type="checkbox"/> CRC panel       |
| <input type="checkbox"/> EA panel       | <input type="checkbox"/> Melanoma panel  |
| <input type="checkbox"/> PACA panel     | <input type="checkbox"/> Growth panel    |
| <input type="checkbox"/> LYNCH panel    | <input type="checkbox"/> FHM panel       |
| <input type="checkbox"/> Diabetes panel | <input type="checkbox"/> MODYScan        |
| <input type="checkbox"/> LIPO panel     | <input type="checkbox"/> Muscle panel    |
| <input type="checkbox"/> MuscleScan     | <input type="checkbox"/> PGL panel       |
| <input type="checkbox"/> PGL panel      | <input type="checkbox"/> PolyQ           |
| <input type="checkbox"/> PolyQ          | <input type="checkbox"/> Polyp panel     |
| <input type="checkbox"/> Polyp panel    | <input type="checkbox"/> Channelopathies |

For an overview of all genes in the gene panels see:

<https://www.lumc.nl/org/klinische-genetica/patientenzorg/aanvragen-laboratoriumdiagnostiek/Genpanels/?setlanguage=English&setcountry=en>

NB. NGS is performed by GenomeScan B.V. (with the exception of Melanoma and PGL panel)

## Genome analysis

- Mental retardation or developmental delay, with or without multiple congenital defects
- Microdeletion syndrome (specify)
- Growth disorders
- Carrier detection as a result of array finding

## Test

- CNV analysis (genome wide)

<b>Disorder/Referral</b>	<b>Type</b>	<b>Gene/Test</b>
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### Blood diseases

Hemochromatosis      Type 1

HFE

Hemoglobinopathies / Thalassemia

Please use "Requisition form Hemoglobinopathy analysis"

Hemophilia (*Please send in 2 tubes EDTA blood*) Type A  
 Type B

F8  
 F9

### Cancer genetics

\*Requests only by a consultant clinical geneticist

Breast- and ovarian cancer, hereditary \*

BRCA1

BRCA2

PALB2

CHEK2 (c.1100delC)

All three above

BRIP1

RAD51C

RAD51D

Clear cell meningioma/ Familial Multiple Meningioma\* CCM  SMARCE1

SMARCB1

FAMMM (Familial Atypical Multiple Mole-Melanoma)\*  CDKN2A

CDK4

POT1

BAP1

MITF

Gastrointestinal Stromal Tumors  SDHA

(GIST, Carney-Stratakis syndrome)

Hyperparathyroidism-jaw tumor syndrome (HPT-JT/HRPT2)  CDC73

Lynch syndrome (HNPCC)\*  MLH1

MSH2 (incl. EPCAM)

MSH6

PMS2

Myeloproliferative diseases (MPDs, somatic mutation)

JAK2

(p.Val617Phe)

MPN-combi:

JAK2 exon 12 &

exon 14 p.(Val617Phe),

MPL exon 10 and

CALR exon 9

<b>Disorder/Referral</b>	<b>Type</b>	<b>Gene/Test</b>
<input type="radio"/> Paragangliomas and/or pheochromocytomas		<input type="radio"/> MAX <input type="radio"/> SDHA <input type="radio"/> SDHAF2 <input type="radio"/> SDHB <input type="radio"/> SDHC <input type="radio"/> SDHD <input type="radio"/> TMEM127
<input type="radio"/> Polyposis coli, adenomatous*	FAP1 MAP NAP PPAP PPAP FAP4	<input type="radio"/> APC (incl. GREM1) <input type="radio"/> MUTYH <input type="radio"/> NTHL1 <input type="radio"/> POLD1 <input type="radio"/> POLE <input type="radio"/> MSH3
<input type="radio"/> Renal Cell Carcinoma (RCC), hereditary		<input type="radio"/> SDHB
<input type="radio"/> Rhabdoid tumor predisposition syndrome (RTPS)*	RTPS1 RTPS2	<input type="radio"/> SMARCB1 <input type="radio"/> SMARCA4
<input type="radio"/> Small cell carcinoma of the ovary, hypercalcemic type*	SCCOHT SCCOHT	<input type="radio"/> SMARCA4 <input type="radio"/> SMARCB1
<input type="radio"/> Schwannomatosis*		<input type="radio"/> SMARCB1

## Channelopathies

<input type="radio"/> Hyperkalemic periodic paralysis (HYPP)		<input type="radio"/> SCN4A
<input type="radio"/> Hypokalemic periodic paralysis (HOKPP)	Type 1	<input type="radio"/> CACNA1S
	Type 2	<input type="radio"/> SCN4A
<input type="radio"/> Myotonia congenita (Thomsen, Becker disease)		<input type="radio"/> CLCN1
<input type="radio"/> Myotonia permanens/fluctuans		<input type="radio"/> SCN4A
<input type="radio"/> Paramyotonia congenita		<input type="radio"/> SCN4A

## Diabetes

<input type="radio"/> Hyperproinsulinemia	<input type="radio"/> INS
<input type="radio"/> Insulin dependent diabetes	<input type="radio"/> INS
<input type="radio"/> MIDD (Maternally Inherited Diabetes and Deafness)	<input type="radio"/> m.3243A>G tRNALEU/UUR

<b>Disorder/Referral</b>	<b>Type</b>	<b>Gene/Test</b>
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<input type="radio"/> MODY (Maturity Onset Diabetes of the Young)	Type 1 Type 2 Type 3 Type 4 Type 5 Type 6 Type 7 Type 10	<input type="radio"/> HNF4A <input type="radio"/> GCK <input type="radio"/> HNF1A <input type="radio"/> PDX1 (IPF1) <input type="radio"/> HNF1B <input type="radio"/> NEUROD1 <input type="radio"/> KLF11 <input type="radio"/> INS
<input type="radio"/> PNDM (Permanent Neonatal Diabetes Mellitus)		<input type="radio"/> GCK <input type="radio"/> INS <input type="radio"/> KCNJ11
<input type="radio"/> Persistent hyperinsulinemic hypoglycemia of infancy (PHHI)		<input type="radio"/> GCK <input type="radio"/> KCNJ11

### Growth and skeletal defects

<input type="radio"/> Achondroplasia	<input type="radio"/> FGFR3
<input type="radio"/> Acromesomelic dysplasia Type Maroteaux	<input type="radio"/> NPR2
<input type="radio"/> Hereditary Multiple Osteochondromas	<input type="radio"/> EXT1 <input type="radio"/> EXT2
<input type="radio"/> NPR2- related tall stature	<input type="radio"/> NPR2
<input type="radio"/> Hypochondroplasia	<input type="radio"/> FGFR3
<input type="radio"/> Langer mesomelic dysplasia (Leri-Weill dyschondrosteosis)	<input type="radio"/> SHOX
<input type="radio"/> Multiple epiphyseal dysplasia	<input type="radio"/> COMP
<input type="radio"/> Pseudoachondroplastic dysplasia	<input type="radio"/> COMP
<input type="radio"/> Short stature (proportionate)	<input type="radio"/> GH1 <input type="radio"/> GHR <input type="radio"/> GHSR <input type="radio"/> IGF1 <input type="radio"/> IGF1R <input type="radio"/> IGFALS <input type="radio"/> STAT5B
<input type="radio"/> Short stature (osteochondritis dissecans)	<input type="radio"/> ACAN
<input type="radio"/> Tall stature	<input type="radio"/> NPR2
<input type="radio"/> Thanatophoric dysplasia	<input type="radio"/> FGFR3
<input type="radio"/> Van Buchem disease	<input type="radio"/> VBCH

<b>Disorder/Referral</b>	<b>Type</b>	<b>Gene/Test</b>
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### **Immune system**

- |  |        |                             |
|--|--------|-----------------------------|
| <input type="radio"/> Chilblain lupus                          | Type 1 | <input type="radio"/> TREX1 |
| <input type="radio"/> Granulomatous disease, chronic, X-linked |        | <input type="radio"/> CYBB  |
| <input type="radio"/> Lymphoproliferative syndrome, X-linked   |        | <input type="radio"/> XLP   |
| <input type="radio"/> Mediterranean fever, familial (FMF)      |        | <input type="radio"/> MEFV  |
| <input type="radio"/> Wiskott-Aldrich syndrome                 |        | <input type="radio"/> WAS   |

### **Metabolic diseases**

- |  |                                    |
|--|------------------------------------|
| <input type="radio"/> Adrenal hypoplasia, congenital | <input type="radio"/> NR0B1 (DAX1) |
| <input type="radio"/> Cystinuria                     | <input type="radio"/> SLC3A1       |
|  | <input type="radio"/> SLC7A9       |

### **Muscular dystrophies/ Myopathies**

- |   |   |  |
|---|---|--|
| <input type="radio"/> Congenital myasthenic syndrome-11 associated with acetylcholine receptor deficiency (CMS11) | <input type="radio"/> RAPSN   |  |
| <input type="radio"/> Duchenne and Becker   | <input type="radio"/> DMD MLPA only   |  |
|   | <input type="radio"/> DMD Sequencing only                                   |  |
|   | <input type="radio"/> DMD MLPA, if negative directly followed by sequencing |  |
| <input type="radio"/> Emery-Dreifuss (X-linked)   | <input type="radio"/> EMD   |  |
| <input type="radio"/> Facioscapulohumeral (FSHD)<br><i>(Please send in 2 tubes EDTA blood)</i>                    | <input type="radio"/> Type 1  | <input type="radio"/> Rearrangement chromosome 4 |
|   | <input type="radio"/> Type 2  | <input type="radio"/> SMCHD1                     |

<b>Disorder/Referral</b>	<b>Type</b>	<b>Gene/Test</b>
<input type="radio"/> Limb Girdle	Myofibrillar myopathy	<input type="radio"/> MYOT
	Emery–Dreifuss muscular dystrophy (EDMD)	<input type="radio"/> LMNA
	Rippling muscle disease	<input type="radio"/> CAV3
	LGMD D4 / R1	<input type="radio"/> CAPN3
	LGMD R2	<input type="radio"/> DYSF
	LGMD R5	<input type="radio"/> SGCG
	LGMD R3	<input type="radio"/> SGCA
	LGMD R4	<input type="radio"/> SGCB
	LGMD R6	<input type="radio"/> SGCD
	LGMD R7	<input type="radio"/> TCAP
	LGMD R8	<input type="radio"/> TRIM32
	LGMD R9	<input type="radio"/> FKRP
	LGMD R12	<input type="radio"/> ANO5
<input type="radio"/> Miyoshi (MMD3)		<input type="radio"/> ANO5
<input type="radio"/> Myopathy with extrapyramidal signs		<input type="radio"/> MICU1

## Neurogenetics

<input type="radio"/> Aicardi-Goutières syndrome	Type 1	<input type="radio"/> TREX1
<input type="radio"/> Alternating Hemiplegia of Childhood	Type 2	<input type="radio"/> ATP1A3
<input type="radio"/> CADASIL		<input type="radio"/> NOTCH3
<input type="radio"/> Cerebral hemorrhage with amyloidosis (HCHWA-D)		<input type="radio"/> APP
<input type="radio"/> Dentatorubral-pallidoluysian atrophy (DRPLA)		<input type="radio"/> ATN1
<input type="radio"/> Episodic ataxia	Type 2	<input type="radio"/> CACNA1A
<input type="radio"/> Huntington disease		<input type="radio"/> HTT
<input type="radio"/> Huntington, disease-like 2 (HDL2)		<input type="radio"/> JPH3
<input type="radio"/> Hyperekplexia (familial Startle disease)		<input type="radio"/> GLRA1
		<input type="radio"/> GLRB
		<input type="radio"/> SLC6A5
<input type="radio"/> Migraine, familial hemiplegic (FHM)		<input type="radio"/> ATP1A2
		<input type="radio"/> CACNA1A
		<input type="radio"/> SCN1A
<input type="radio"/> Myoclonus dystonia syndrome		<input type="radio"/> SGCE

<b>Disorder/Referral</b>	<b>Type</b>	<b>Gene/Test</b>
<input type="radio"/> Neuronal ceroid lipofuscinosis (NCL)	Juvenile	<input type="radio"/> CLN3
	Late infantile	<input type="radio"/> TPP1 (CLN2)
	Late infantile	<input type="radio"/> CLN6
	Late infantile	<input type="radio"/> CLN8
	Late infantile / adult	<input type="radio"/> PPT1 (CLN1)
<input type="radio"/> Paroxysmal torticollis		<input type="radio"/> CACNA1A
<input checked="" type="radio"/> Polyglutamin repeat disorders		<input type="radio"/> CACNA1A, TBP, ATXN1, ATXN7, ATXN2, ATXN3 and ATN1
<input type="radio"/> Retinal vasculopathy with cerebral leukodystrophy (RVCL)		<input type="radio"/> TREX1

### **Polycystic kidney disease**

<input type="radio"/> Autosomal dominant Polycystic kidney disease (ADPKD)	Dominant	<input type="radio"/> PKD1
<input type="radio"/> Autosomal dominant Polycystic kidney and liver disease (ADPKD)	Dominant	<input type="radio"/> PKD2
<input type="radio"/> Autosomal recessive Polycystic kidney (ARPKD)	Recessive	<input type="radio"/> GANAB
<input type="radio"/> Renal cysts and diabetes syndrome (RCAD)	Dominant	<input type="radio"/> PKHD1
		<input type="radio"/> HNF1B

### **Syndromes**

<input type="radio"/> Coffin-Siris syndrome	<input type="radio"/> ARID1A
	<input type="radio"/> ARID1B
	<input type="radio"/> SMARCA4
	<input type="radio"/> SMARCB1
	<input type="radio"/> SMARCE1
<input type="radio"/> Ellis van Creveld syndrome	<input type="radio"/> EVC
	<input type="radio"/> EVC2
<input type="radio"/> Filippi syndrome	<input type="radio"/> CKAP2L
<input type="radio"/> Marshall-Smith syndrome	<input type="radio"/> NFIX
<input type="radio"/> Nicolaides-Baraitser syndrome	<input type="radio"/> SMARCA2

<b>Disorder/Referral</b>	<b>Type</b>	<b>Gene/Test</b>
<input type="radio"/> Peters Plus syndrome	<input type="radio"/>	B3GLCT (B3GALTL)
<input type="radio"/> Pitt-Hopkins syndrome	<input type="radio"/>	TCF4
<input type="radio"/> Rubinstein - Taybi syndrome	<input type="radio"/>	CREBBP
	<input type="radio"/>	EP300
<input type="radio"/> Sotos syndrome	<input type="radio"/>	NSD1
<input type="radio"/> Sotos-like syndrome	<input type="radio"/>	DNMT3A
	<input type="radio"/>	NFIX
	<input type="radio"/>	SETD2
	<input type="radio"/>	HIST1H1E
<input type="radio"/> TAR (thrombocytopenia-absent radius) syndrome	<input type="radio"/>	1q21.1 deletion and RBM8A SNP
<input type="radio"/> Weaver syndrome	<input type="radio"/>	EZH2

**Other**

<input type="radio"/> Calcemia (hyper/hypo), familial	<input type="radio"/>	CASR
<input type="radio"/> Keratosis follicularis spinulosa decalvans (KFSD)	<input type="radio"/>	MBTPS2
<input type="radio"/> TSH deficiency and macroorchidism, X-linked	<input type="radio"/>	IGSF1