

ORDER FORM

HEALTH CARE PROVIDER INFORMATION

|                      |                                                     |
|----------------------|-----------------------------------------------------|
| INSTITUTION/PRACTICE | ADDRESS (STREET NAME, NO., CITY, POSTCODE, COUNTRY) |
| FIRST NAME           | TELEPHONE NUMBER (COUNTRY CODE & NUMBER)            |
| LAST NAME            | E-MAIL ADDRESS (FOR REPORT ACCESS)                  |

PATIENT INFORMATION

|                            |                                                     |
|----------------------------|-----------------------------------------------------|
| FIRST NAME                 | ADDRESS (STREET NAME, NO., CITY, POSTCODE, COUNTRY) |
| LAST NAME                  | TELEPHONE NUMBER (COUNTRY CODE & NUMBER)            |
| DATE OF BIRTH (DD/MM/YYYY) | IDENTIFICATION NO. (IF APPLICABLE)                  |

GENETIC SEX ☐ FEMALE ☐ MALE  
☐ OTHER (SPECIFY KARYOTYPE IF KNOWN):

Please complete the above two sections in English.

CLINICAL INDICATION

**IMPORTANT:** Please provide as much detail as possible on the patient's clinical symptoms and relevant family history. This information supports informatics filtering and accurate variant interpretation. Please complete the phenotypic features as fully as possible using the **HPO term list (Human Phenotype Ontology) on pages 3 and 4**, and add any relevant individual details where appropriate.

Is there a pregnancy / partner's pregnancy? ☐ No ☐ Yes Gestational week \_\_\_\_\_ + \_\_\_\_\_

Family history

Other affected family members with similar symptoms? ☐ No ☐ Yes ☐ Unknown

If yes, relationship(s): \_\_\_\_\_

Parental consanguinity: ☐ Yes ☐ No ☐ Unknown

Previous genetic testing in the patient and/or family? ☐ Yes ☐ No ☐ Unknown If yes, attach report / add details under clinical symptoms

☐ Further clinical information attached

PARENTAL INFORMATION FOR DUO / TRIO WES

For Duo/Trio WES, please ensure that complete identifying and sample information is provided for each biological parent included in the analysis.

|                               |                               |
|-------------------------------|-------------------------------|
| Mother                        | Father                        |
| First name / Last name: _____ | First name / Last name: _____ |
| Date of birth: _____          | Date of birth: _____          |

TEST REQUEST<sup>1</sup>

☐ Single WES (only the index patient) ☐ Duo WES (Patient and one biological parent) ☐ Trio WES (Patient and the two biological parents)

<sup>1</sup> For analyses beyond Trio WES, please contact us in advance.

SAMPLE MATERIAL<sup>2</sup>

|                           |                                       |                                                                                                                    |
|---------------------------|---------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| Index patient             | Collection date: _____<br>Time: _____ | <input type="checkbox"/> EDTA blood (2-5 mL)<br><input type="checkbox"/> DNA from _____<br>(≥ 250 ng; ≥ 100 ng/μL) |
| Mother (for Duo/Trio WES) | Collection date: _____<br>Time: _____ | <input type="checkbox"/> EDTA blood (2-5 mL)<br><input type="checkbox"/> DNA from _____<br>(≥ 250 ng; ≥ 100 ng/μL) |
| Father (for Trio WES)     | Collection date: _____<br>Time: _____ | <input type="checkbox"/> EDTA blood (2-5 mL)<br><input type="checkbox"/> DNA from _____<br>(≥ 250 ng; ≥ 100 ng/μL) |

<sup>2</sup> For other sample type prior approval is required, please contact us in advance for more information.

## DECLARATION OF CONSENT (ACCORDING TO GERMAN GENETIC DIAGNOSTICS ACT, GenDG)

*Applicable only for the determination of genetic (hereditary) characteristics*

The GenDG requires provision of detailed information and a written consent for all genetic investigations as well as genetic counselling prior to both predictive (applies to healthy individuals) and prenatal testing (with restrictions: prenatal testing is not performed for late manifesting disorders, including Hereditary Cancer). The German Society of Human Genetics (GfH) and the Association of German Human Geneticists (BVDH) recommend clarifying the issues listed below during the information process. Please read the declaration of consent carefully and tick the boxes, in accordance with your consent.

**By signing the form, I confirm that I:**

- Have been fully informed by my physician about the significance and consequences of the genetic investigation, in compliance with GenDG.
- Have read/have been read the Information for Patients (last page of this document) and which I fully understand.
- Have been given sufficient opportunity to discuss open questions.
- Authorise \_\_\_\_\_ (legal entity name) to collect the necessary samples for investigation (blood, tissue, chorionic villus cells or amniotic fluid for prenatal diagnosis) and to send this form to MVZ Martinsried GmbH, Lochhamer Str. 29, 82152 Martinsried, Germany, in order to perform the tests requested through this form.
- Consent to the genetic test being carried out in order to clarify the disease/dysfunction/suspected diagnosis.

YES NO

- ☐ ☐ I agree that the investigation or parts of the investigation may be forwarded to collaborating medical laboratories, if necessary.
- ☐ ☐ I agree with the evaluation of additional genes in the same indication group as part of the research.
- ☐ ☐ I agree that the remaining specimens may be stored for further investigations after the examination is completed, yet not claiming storage.
- ☐ ☐ I agree that the specimens, and if applicable DNA sequence information, may be made available anonymously for quality management and scientific purposes.
- ☐ ☐ I agree that the results of the analysis may be stored for a longer period than the statutory period of 10 years, yet not claiming storage of results.
- ☐ ☐ I agree to the storage and use of my test results under the protection of anonymity in a statistical database used for scientific purposes and to help diagnose genetic diseases.
- ☐ ☐ I understand that I will remain under the protection of anonymity and I cannot be identified during the analysis of the data and that any personal information will be transformed into information of a non-personal nature.

**ADDITIONAL SIGNATURES FOR DUO / TRIO WES (if required)**

SIGNATURE OF MOTHER:

**By signing the form below I confirm that:**

- I may stop the investigation at any time and ask for the results available until that time to be destroyed.
- I may withdraw any of my consents given through this form entirely or in part at any time without giving reasons.
- I will be charged for the costs incurred until the time of withdrawal of consent.
- I may choose not to be informed about the test results (right not to know).
- I know that the genetic investigation and evaluation is limited to the requested indication and no statements will be made about other diseases.
- All information I have provided is true and correct.

**Communication of additional findings found during the course of the research**☐ YES, I wish to be informed.☐ NO, I do not wish to be informed.**In addition,**

☐ YES ☐ NO I agree that a copy of the results of the analysis may be sent to the following physician(s), in accordance with my express requests and according to \_\_\_\_\_ (legal entity name) internal procedures.

\_\_\_\_\_  
PHYSICIAN NAME\_\_\_\_\_  
STREET\_\_\_\_\_  
POSTCODE / CITY\_\_\_\_\_  
COUNTRY\_\_\_\_\_  
PLACE\_\_\_\_\_  
DATE

SIGNATURE OF INDEX PATIENT OR PARENT / LEGAL GUARDIAN:

SIGNATURE OF PHYSICIAN:

SIGNATURE OF FATHER:

## CLINICAL PHENOTYPE INFORMATION (HPO TERMS)

Please indicate the patient's phenotypic features as completely as possible using the HPO term list below. Accurate phenotype information supports bioinformatic filtering and variant interpretation. Please add any relevant individual details where needed.

## PRENATAL MEDICAL HISTORY

- ☐ Not examined / unknown
- ☐ No relevant abnormalities
- ☐ Premature birth (HP:0001622)
- ☐ Intrauterine growth retardation (IUGR, HP:0001511)
- ☐ Polyhydramnios (HP:0001561)
- ☐ Oligohydramnios (HP:0001562)
- ☐ Decreased fetal movement (HP:0001558)
- ☐ Intracranial haemorrhage (HP:0002170)
- ☐ Others: \_\_\_\_\_

## DEVELOPMENTAL DELAY / INTELLECTUAL DISABILITY

- ☐ Not examined / unknown
- ☐ No developmental abnormalities
- ☐ No intellectual disability
- ☐ Intellectual disability  
☐ mild, ☐ moderate, ☐ severe  
(HP:0001256, HP:0002342, HP:0010864)
- ☐ Global developmental delay  
☐ mild, ☐ moderate, ☐ severe  
(HP:0001263, HP:0011343, HP:0011344)
- ☐ Motor delay (HP:0001270)
- ☐ Delayed speech and language development (HP:0000750)
- ☐ Autism (HP:0000717)
- ☐ Developmental regression (HP:0002376)
- ☐ Others: \_\_\_\_\_

## CRANIOFACIAL ABNORMALITIES

- ☐ Not examined / unknown
- ☐ No craniofacial abnormalities
- ☐ Macrocephaly (HP:0000256)
- ☐ Microcephaly (HP:0000252)
- ☐ Craniosynostosis (HP:0001363)
- ☐ Broad forehead / Prominent forehead (HP:0000337 / HP:0011220)
- ☐ Oral cleft (HP:0000202)
- ☐ Hypertelorism (HP:0000316)
- ☐ Hypotelorism (HP:0000601)
- ☐ Abnormality of the nose (HP:0000366): \_\_\_\_\_
- ☐ Abnormality of the outer ear (HP:0000356): \_\_\_\_\_
- ☐ Micrognathia (HP:0000347)
- ☐ Oligodontia (HP:0000677)
- ☐ Others: \_\_\_\_\_

## BRAIN ABNORMALITIES

- ☐ Not examined / unknown
- ☐ Normal brain MRI
- ☐ Aplasia/Hypoplasia of the corpus callosum (HP:0007370)
- ☐ Agenesis of corpus callosum (HP:0001274)
- ☐ Aplasia/Hypoplasia of the cerebellum (HP:0007360)
- ☐ Aplasia/Hypoplasia of the cerebellar vermis (HP:0006817)
- ☐ Abnormal myelination (HP:0012447)
- ☐ Lissencephaly (HP:0001339)
- ☐ Schizencephaly (HP:0010636)
- ☐ Porencephalic cyst (HP:0002132)
- ☐ Pachygyria (HP:0001302)
- ☐ Polymicrogyria (HP:0002126)
- ☐ Grey matter heterotopia (HP:0002282)
- ☐ Abnormality of the basal ganglia (HP:0002134)
- ☐ Leukoencephalopathy (HP:0002352)
- ☐ Brain atrophy (HP:0012444)
- ☐ Ventriculomegaly (HP:0002119)
- ☐ Hydrocephalus (HP:0000238)
- ☐ Holoprosencephaly (HP:0001360)
- ☐ Others: \_\_\_\_\_

## RESPIRATORY DIFFICULTIES AND RESPIRATORY SYMPTOMS

- ☐ Not examined / unknown
- ☐ No respiratory abnormalities
- ☐ Respiratory insufficiency (HP:0002093)
- ☐ Respiratory failure (HP:0002878)
- ☐ Recurrent infections (HP:0002719)
- ☐ Bronchiectasis (HP:0002110)
- ☐ Others: \_\_\_\_\_

## NEUROLOGICAL SYMPTOMS

- ☐ Not examined / unknown
- ☐ No neurological symptoms
- ☐ Seizures (☐ generalised / ☐ focal)
- ☐ Encephalopathy (HP:0001298)
- ☐ Decreased nerve conduction velocity (HP:0000762)
- ☐ Neuropathy (☐ motor / ☐ sensory)
- ☐ Ataxia (HP:0001251)
- ☐ Tremor (HP:0001337)
- ☐ Dystonia (HP:0001332)
- ☐ Chorea (HP:0002072)
- ☐ Spasticity (HP:0001257)
- ☐ Gait disturbance (HP:0001288)
- ☐ Nystagmus (HP:0000639)
- ☐ Migraine (HP:0002076)
- ☐ Sleep disturbance (HP:0002360)
- ☐ Others: \_\_\_\_\_

## EYE ABNORMALITIES

- ☐ Not examined / unknown
- ☐ No eye abnormalities
- ☐ Abnormality of vision (HP:0000504): \_\_\_\_\_
- ☐ Bilateral
- ☐ Retinopathy (HP:0000488)
- ☐ Anophthalmia (HP:0000528)  
☐ Bilateral
- ☐ Bilateral microphthalmos (HP:0007633)
- ☐ Strabismus (HP:0000486)  
☐ Bilateral
- ☐ Developmental cataract (HP:0000519)
- ☐ Others: \_\_\_\_\_

## HEARING AND BALANCE ABNORMALITIES

- ☐ Not examined / unknown
- ☐ No hearing abnormalities
- ☐ No balance abnormalities
- ☐ Sensorineural hearing impairment (HP:0000407) ☐ Bilateral
- ☐ Conductive hearing impairment (HP:0000405)
- ☐ Vestibular dysfunction: (HP:0001751)
- ☐ Others: \_\_\_\_\_

CLINICAL PHENOTYPE INFORMATION (HPO TERMS)

MUSCULOSKELETAL DISORDERS

- ☐ Not examined / unknown
- ☐ No muscular abnormalities
- ☐ No skeletal abnormalities
- ☐ Hypotonia (HP:0001252)
- ☐ Hypertonia (HP:0001276)
- ☐ Elevated circulating creatine kinase concentration (HP:0003236)
- ☐ Ptosis (HP:0000508)
- ☐ Distal arthrogryposis (HP:0005684)
- ☐ Arthrogryposis multiplex congenita (HP:0002804)
- ☐ Short stature (HP:0004322)
- ☐ Skeletal dysplasia (HP:0002652)
- ☐ Tall stature (HP:0000098)
- ☐ Joint hypermobility (HP:0001382)
- ☐ Hand polydactyly / ☐ Foot polydactyly (HP:0001161/HP:0001829)
- ☐ Hand syndactyly / ☐ Foot syndactyly, specify: \_\_\_\_\_
- ☐ Camptodactyly of finger (HP:0100490)
- ☐ Talipes (HP:0001883)
- ☐ Scoliosis (HP:0002650)
- ☐ Pectus carinatum (HP:0000768)
- ☐ Increased bone mineral density (HP:0011001)
- ☐ Osteoporosis (HP:0000939)
- ☐ Delayed skeletal maturation (HP:0002750)
- ☐ Multiple exostoses (HP:0002762)
- ☐ Others: \_\_\_\_\_

CARDIOVASCULAR ABNORMALITIES

- ☐ Not examined / unknown
- ☐ No cardiovascular abnormalities
- ☐ Atrial septal defect (HP:0001631)
- ☐ Ventricular septal defect (HP:0001629)
- ☐ Pulmonary stenosis (HP:0001642)
- ☐ Heart defect: \_\_\_\_\_
- ☐ Cardiomyopathy: \_\_\_\_\_
- ☐ Hypertrophic cardiomyopathy (HP:0001639)
- ☐ Dilated cardiomyopathy (HP:0001644)
- ☐ Arrhythmia (HP:0011675)
- ☐ Aortic aneurysm (HP:0004942)
- ☐ Abnormality of the vasculature (HP:0002597)
- ☐ Pulmonary arterial hypertension (HP:0002092)
- ☐ Aborted sudden cardiac death (HP:0031628)
- ☐ Others: \_\_\_\_\_

IMMUNOLOGICAL AND HAEMATOLOGICAL ABNORMALITIES

- ☐ Not examined / unknown
- ☐ No immunological abnormalities
- ☐ No haematological abnormalities
- ☐ Abnormal inflammatory response (HP:0012647)
- ☐ Immunodeficiency (HP:0002721)
- ☐ Recurrent infections (HP:0002719)
- ☐ Anaemia (HP:0001903):
- ☐ Neutropenia (HP:0001875)
- ☐ Thrombocytopenia (HP:0001873)
- ☐ Abnormality of coagulation (HP:0001928)
- ☐ Abnormal circulating enzyme concentration HP:0011021)
- ☐ Others: \_\_\_\_\_

METABOLIC AND ENDOCRINE ABNORMALITIES

- ☐ Not examined / unknown
- ☐ No metabolic abnormalities
- ☐ No endocrine abnormalities
- ☐ Failure to thrive (HP:0001508)
- ☐ Hemihypertrophy (HP:0001528)
- ☐ Obesity (HP:0001513)
- ☐ Abnormality of the mitochondrion (HP:0012103)
- ☐ Lactic acidosis (HP:0003128)
- ☐ Proteinuria (HP:0000093)
- ☐ Hyperglycaemia (HP:0003074)
- ☐ Hypoglycaemia (HP:0001943)
- ☐ Ketosis (HP:0001946)
- ☐ Diabetes mellitus (HP:0000819)
- ☐ Nephrogenic diabetes insipidus (HP:0009806)
- ☐ Hypothyroidism (HP:0000821)
- ☐ Hypercalcaemia (HP:0003072)
- ☐ Hypoparathyroidism (HP:0000829)
- ☐ Exocrine pancreatic insufficiency (HP:0001738)
- ☐ Hypogonadism (HP:0000135)
- ☐ Others: \_\_\_\_\_

SKIN, NAIL AND HAIR ABNORMALITIES

- ☐ Not examined / unknown
- ☐ No abnormalities of the skin, nails and hair
- ☐ Multiple cafe-au-lait spots (HP:0007565)
- ☐ Nevus (HP:0003764)
- ☐ Albinism (HP:0001022)
- ☐ Hypopigmentation of the skin (HP:0001010)
- ☐ Hyperpigmentation of the skin (HP:0000953)
- ☐ Eczema (HP:0000964)
- ☐ Ichthyosis (HP:0008064)
- ☐ Nail dysplasia (HP:0002164)
- ☐ Anhidrosis (HP:0000970)
- ☐ Hyperhidrosis (HP:0000975)
- ☐ Alopecia (HP:0001596)
- ☐ Hypertrichosis (HP:0000998)
- ☐ Others: \_\_\_\_\_

ABNORMALITIES OF THE KIDNEY AND UROGENITAL TRACT

- ☐ Not examined / unknown
- ☐ No renal abnormalities
- ☐ No urogenital abnormalities
- ☐ Not examined / unknown
- ☐ Renal agenesis (HP:0000104)
- ☐ Renal dysplasia (HP:0000110)
- ☐ Renal cyst (HP:0000107)
- ☐ Haematuria (HP:0000790)
- ☐ Proteinuria (HP:0000093)
- ☐ Hypospadias (HP:0000047)
- ☐ Cryptorchidism (HP:0000028)
- ☐ Ambiguous genitalia (HP:0000062)
- ☐ Others: \_\_\_\_\_

OTHER RELEVANT ABNORMALITIES

If you have additional questions or concerns, please contact us at [info.genetics@medicover.com](mailto:info.genetics@medicover.com)

## INFORMATION FOR PATIENTS

A genetic test has been recommended for you, or for a person under your care, to help investigate specific health concerns. In accordance with the **German Genetic Diagnostics Act (GenDG)**, you must be informed about the test before it is performed and must provide **written consent**. The physician ordering the test is responsible for this process.

### PROCEDURE OF GENETIC TESTING

**Purpose of the test:** The genetic analysis aims to identify alterations in your genetic material that may be responsible for your symptoms or conditions, or for diseases that are already known in your family. The results may support medical care, disease management, and family planning decisions.

**Methods of testing:** Various methods can be used for genetic testing, such as chromosome analysis (cytogenetic analysis) or DNA analysis (molecular genetic analysis). The best-suited method will be chosen by the laboratory based on the specific question to be answered. In some cases, a combination of methods may be used to increase the likelihood of detecting a genetic alteration.

**Conducting the test:** The test is typically carried out using a blood sample. The venipuncture generally poses no health risks.

The sample and results will be used only for the purpose of the requested test.

### POSSIBLE RESULTS OF THE GENETIC TEST

Genetic test results are interpreted together with your clinical information, symptoms, medical and family history, and previous diagnoses. Results are confidential and are usually explained by your ordering physician, including any limitations, next steps, and possible unexpected findings. The following are possible results of the test:

#### 1. Identification of a disease-related genetic alteration:

- If a (likely) pathogenic genetic alteration is identified that is linked to your condition, this indicates that the alteration is most likely the cause of your symptoms or condition.
- You will be provided with detailed information about the condition, including its progression and treatment options, if available.

#### 2. No identification of a disease-related genetic alteration:

- Even if no disease-related genetic alteration is found, a genetic cause for your condition cannot be ruled out.
- This is due to the fact that not all clinical abnormalities can be genetically explained, as environmental factors may also play a role. Additionally, it is possible that the genetic cause could not be detected by the methods currently used.
- For this reason, a follow-up consultation and possibly a re-evaluation in 2-4 years is recommended if the results are unremarkable.

#### 3. Identification of genetic alterations with unclear clinical significance:

- Sometimes, genetic alterations are identified whose clinical significance is not yet clear. These so-called variants of uncertain significance (VUS) may be either harmless or disease-related, but their effect is not yet fully understood at the time of testing.
- For this reason, a follow-up consultation and re-evaluation of the genetic analysis in 2-4 years is recommended for any identified VUS.
- You will be informed of such genetic alterations, and discussions will be held with you regarding their potential implications for your health and the health of your family.

#### 4. Incidental and secondary findings:

- In comprehensive genetic analyses, such as exome or genome sequencing, clinically relevant genetic alterations may be identified that are unrelated to the original reason for testing. These findings are classified as incidental findings when they are discovered unintentionally while investigating the primary clinical question, or as secondary findings when they are deliberately and systematically searched for despite being unrelated to the original indication for testing.
- Example: In a test for a developmental disorder, a genetic predisposition to a heart arrhythmia may also be discovered.
- Your decision: You may specify in the consent form whether you wish to be informed of such findings. Typically, only those incidental or secondary findings are reported that are related to conditions for which medical treatment options are available, or preventive measures can be taken.

### CONFIDENTIALITY AND DATA PROTECTION

Your genetic test results will be stored exclusively in a secure laboratory information system and are only accessible to authorized personnel. All data protection regulations will be adhered to according to the applicable legal requirements. The results must be stored for 10 years, after which the data will be destroyed unless you have made other arrangements.

### REVOCATION OF CONSENT

You can **revoke** your consent for the genetic test at any time, either fully or partially, without providing any reasons. You can also stop the test and request the destruction of the tested material before the results are communicated. However, any costs incurred prior to your objection may be charged.

### FURTHER QUESTIONS?

If you have any questions about the methods, results, or any other aspects of the genetic test, please feel free to contact your responsible physician.

For additional information, please visit our website at [www.medicover-genetics.com](http://www.medicover-genetics.com).