

## 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 <input type="checkbox"/> FEMALE <input type="checkbox"/> MALE <input type="checkbox"/> 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: _____ Time: _____	<input type="checkbox"/> EDTA blood (2-5 mL) <input type="checkbox"/> DNA from _____ (≥ 250 ng; ≥ 100 ng/μL)
Mother (for Duo/Trio WES)	Collection date: _____ Time: _____	<input type="checkbox"/> EDTA blood (2-5 mL) <input type="checkbox"/> DNA from _____ (≥ 250 ng; ≥ 100 ng/μL)
Father (for Trio WES)	Collection date: _____ Time: _____	<input type="checkbox"/> EDTA blood (2-5 mL) <input type="checkbox"/> DNA from _____ (≥ 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 hemorrhage (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)
- Gray 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 ( generalized /  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 INFORMATION

### 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)
- Pulmonic 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 HEMATOLOGICAL ABNORMALITIES

- Not examined / unknown
- No immunological abnormalities
- No hematological abnormalities
- Abnormal inflammatory response (HP:0012647)
- Immunodeficiency (HP:0002721)
- Recurrent infections (HP:0002719)
- Anemia (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)
- Hyperglycemia (HP:0003074)
- Hypoglycemia (HP:0001943)
- Ketosis (HP:0001946)
- Diabetes mellitus (HP:0000819)
- Nephrogenic diabetes insipidus (HP:0009806)
- Hypothyroidism (HP:0000821)
- Hypercalcemia (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)
- Hematuria (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

### PATIENT INFORMATION

FIRST NAME	CLINICAL DIAGNOSIS
LAST NAME	TELEPHONE NUMBER (COUNTRY CODE & NUMBER)
DATE OF BIRTH (DD/MM/YYYY)	E-MAIL ADDRESS
GENETIC SEX <input type="checkbox"/> FEMALE <input type="checkbox"/> MALE <input type="checkbox"/> OTHER (SPECIFY KARYOTYPE IF KNOWN):	

Genetic counselling or counselling by the ordering physician is necessary before ordering a test in order to inform the patient of all of the possible outcomes and the limitations of the genetic test.

I understand that I will be tested for:  
(to be filled in by physician)

I understand that the biological sample will be used to determine if I, or members of my family, are carriers of a genetic variant causing the disease, or are carriers of the disease, or have an increased risk of developing a disease.

**The role of genetic testing.** In many cases, a genetic test can directly detect a genetic alteration. Molecular tests can identify structural changes in the DNA (variants). Cytogenetic tests identify the chromosomal changes (structural or numerical). The sensitivity and specificity of each test varies. The tests offered are complex analyses and are performed using high-end equipment. The methods are externally validated, but there is a minimal possibility of errors.

**The significance of the results.** If the result is identified as being directly causative of the clinical manifestations, it is considered to be conclusive. If the test does not identify the causative mutations of the clinical manifestations, it is considered to be inconclusive and this does not preclude other genetic changes (or non-genetic factors) responsible for the disease (a genetic disease or susceptibility to a genetic condition is not excluded). Therefore, an inconclusive result (no causative mutation identified) does not exclude the existence of other pathogenic genetic changes (variants) not tested through the current analysis. Interpretation of the genetic results relies on a complete clinical picture of the patient, including clinical manifestations, family medical history and previous diagnoses. An error in diagnosis could occur due to a clinical picture that is different from that declared. In addition, the test can identify a possible nonpaternity. The test results will be forwarded to the patient by the geneticist or ordering physician and are confidential.

**By my signature, I hereby certify that:**

- I have been informed of the nature and purpose of the genetic test.
- I have been informed of the benefits and limitations of the genetic test by \_\_\_\_\_ (name of physician).
- I have been informed that the genetic test can provide information/results which have no connection with the purpose of testing. I understand that only I decide if I want those additional results to be provided.
- I have received clear answers to my questions in relation to the genetic test.
- I have received a copy of this form.
- I agree to provide a sample for the above mentioned genetic test.

I have explained the risks and benefits of the test, as well as alternative testing methods, to the patient or parent/legal guardian. I have answered all questions from the patient or parent/legal guardian.

**Name of the ordering physician**

FIRST NAME \_\_\_\_\_  
SIGNATURE OF THE ORDERING PHYSICIAN \_\_\_\_\_

**Incidental findings.** Genetic testing can provide information unrelated to the purpose of the test, but that may have medical importance for the patient or family (information correlated with an increased risk for incurable disorders).

**Use of the sample/result.** The sample provided will be used solely for the purpose of the test and for which I have given my written consent. Test results can also be used for research and to improve the diagnosis and treatment of genetic diseases.

The genetic material can be used for other purposes only with my prior express written consent.

**Post-testing genetic counselling.** A conclusive result may offer the patient information on the susceptibility, diagnosis, possible prognosis and/or heritability of the disease. An inconclusive result may lead to confusion and anxiety or may suggest the need for further genetic testing. Therefore, post-testing genetic counselling is advised for the clinical interpretation of the results.

Completed by:  Patient  Parent/Legal Guardian

FIRST NAME \_\_\_\_\_  
LAST NAME \_\_\_\_\_  
DATE OF COMPLETION \_\_\_\_\_  
SIGNATURE \_\_\_\_\_

LAST NAME \_\_\_\_\_  
DATE OF SIGNATURE \_\_\_\_\_