

**NGS Panels**  
Benefit from our medical expertise  
and streamlined genetic testing

Working together for a  
patients better tomorrow.

## Next Generation Sequencing (NGS) Panels

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CENTOGENE is fully committed to bringing the best possible diagnostic solutions to our patients and their families. We always strive to incorporate the latest in-house findings and medical research in our products to improve and ease the diagnostic odyssey of rare disease patients.

To reflect the fast-growing knowledge of complex associations of genes with diseases as well as to maximize clinical sensitivity, we have updated and significantly redesigned our Next Generation Sequencing (NGS) gene panels. The gene composition of each panel has been revised to meet the latest gene discoveries as well as to provide the highest clinical validity. Additionally, we minimized complexity and removed redundancy by creating phenotype-directed diagnostic panels, which include all relevant genes necessary for differential diagnosis of syndromes with overlapping phenotypes, therefore allowing the diagnosis of diseases that otherwise would be missed. This principle increases the clinical utility, de-risks panel choice, increases cost-effectiveness, and ultimately simplifies the diagnostic process.

When choosing one of our NGS panels, feel confident that you will receive high-quality sequencing combined with best data analysis and interpretation, which are documented in comprehensive medical reports. As always, CENTOGENE and our Customer Support Team is readily available to help in each step of the diagnostic process.

## When to Choose a Panel?

Recommended when patients meet any of the following criteria:<sup>1</sup>

- Genetically heterogeneous disorders where a similar manifestation might occur through different genetic mechanisms
- Phenotypes corresponding to disturbances of the same pathway
- Disorders sharing one manifestation with varying presentations
- Disorders with overlapping manifestations corresponding to differential diagnosis
- Disorders where multiple genes are linked to the condition
- Family history suggestive of a genetic condition, but without a precise diagnosis

<sup>1</sup> Genet Med. 2015 Jun;17(6):444-51. doi: 10.1038/gim.2014.122. Epub 2

## Panel Features

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<b>COVERAGE</b>	≥ 99.0% targeted regions covered at ≥ 20x
<b>CNV ANALYSIS</b>	Included in our panels at no extra cost
<b>MITOCHONDRIAL GENOME</b>	Mitochondrial genome added for panels where symptoms may be caused by mitochondrial DNA mutations
<b>VARIANTS</b>	All single nucleotide variants described in HGMD and CENTOGENE's rare disease-centric Biodatabank, including relevant deep intronic and regulatory variants
<b>CLINICAL INFORMATION</b>	Detailed and specific clinical information (i.e., HPOs) is required for variant interpretation and medical diagnosis
<b>REPORTING</b>	Pathogenic and likely pathogenic variants are reported following ACMG classification guidelines and according to the clinical information provided. Variants of uncertain significance (VUS) related to the described phenotype(s) of the patient or family members are reported only if the described phenotype(s) is not explained by detected pathogenic or likely pathogenic variant(s). VUS are not reported when there is insufficient clinical information, or in our Oncogenetic panels
<b>COMPLEMENTARY ASSAYS</b>	Our panels are reinforced when necessary with auxiliary assays
<b>TAT</b>	25 days

Some exceptions may apply. For complete information about our panels, please visit: [www.centogene.com/diagnostics/ngs-panels](http://www.centogene.com/diagnostics/ngs-panels)

# The CENTOGENE Advantage

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**MORE THAN STREAMLINED GENETIC TESTING. THE SUPPORT YOU NEED TODAY.**

## CentoCard®

Our quick, cost-effective, and hassle-free solution for shipment of clinical blood samples for genetic testing. CentoCard® provides a single sample for complete patient diagnostics: enzyme assay, biomarker analysis, and genetic testing.

## Extended Phenotyping

Structuring your patient's symptoms into Human Phenotype Ontology (HPO) terms ensures the best quality of clinical information for data interpretation.

## Data Safety and Research Use

With transparent and easy-to-understand consent forms, your patients can make educated decisions without worrying about data protection. By consenting to the research and storage option, you and your patients will advance research, the understanding of rare diseases, and the quality of future diagnoses and therapies.

## Multiomics Testing

Continuous research identifies and validates biomarkers, increasing disease understanding and enabling therapy monitoring. This has already added diagnostic certainty to lysosomal storage disorders and other diseases.

## CentoPortal®

Our user-friendly and fully-secure online service [www.centoport.com](http://www.centoport.com) is designed to assist in ordering tests, transferring patient data, administering patient's samples, and accessing your diagnostic reports 24/7.

## The CENTOGENE Biodatabank

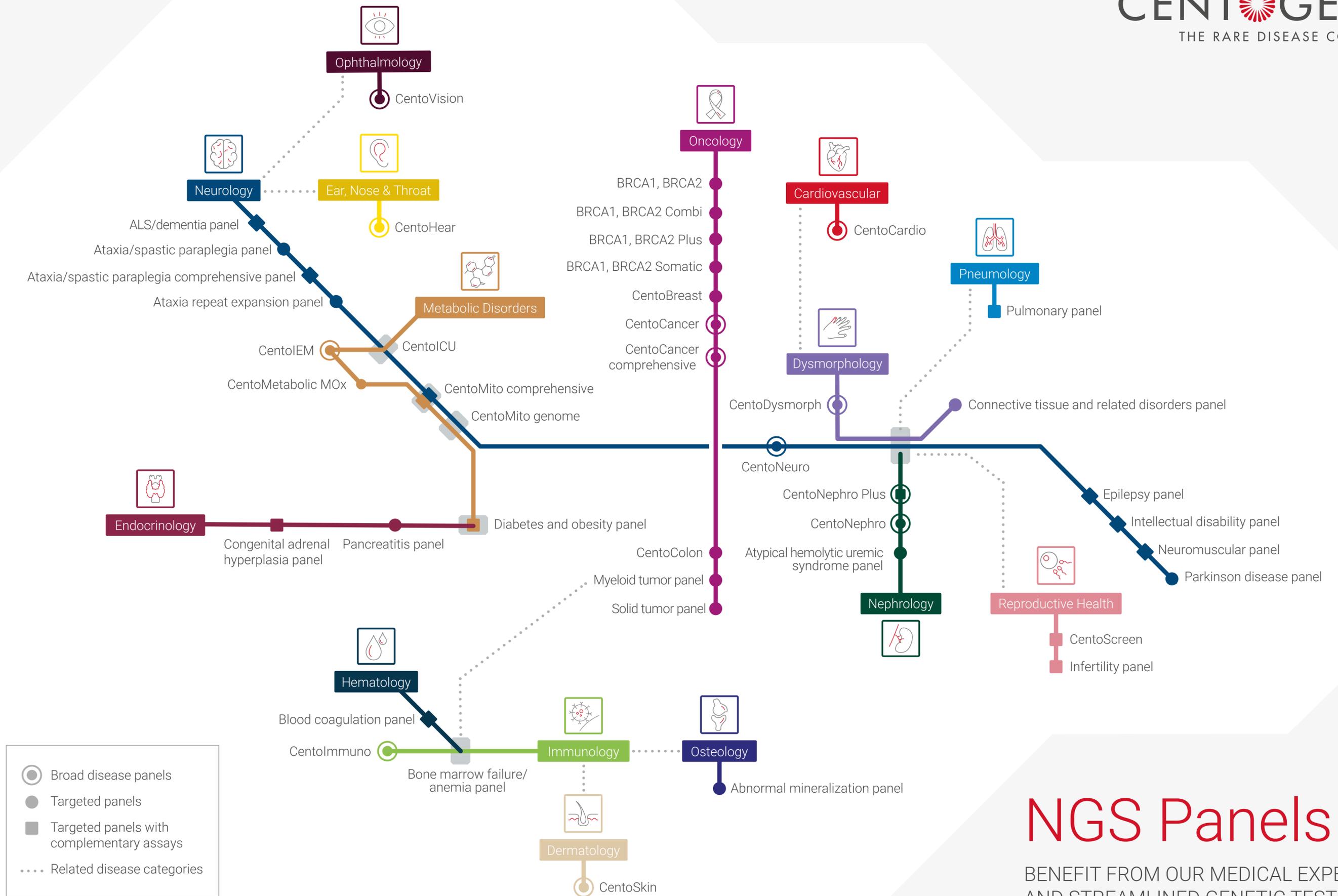
The world's largest real-world data repository for rare and neurodegenerative diseases

## Clinical Studies and Pharma Partnerships

By participating in clinical studies, patients benefit by contributing to the development of new therapies and improved disease monitoring. Through pharmaceutical partnerships, we also leverage our expertise to speed up drug development in rare diseases.

## World-Class Expertise

CENTOGENE's built on our international team of genetic and bioinformatics experts, the latest lab technology, continuously improved processes and protocols, and unique data analysis software.



# NGS Panels

BENEFIT FROM OUR MEDICAL EXPERTISE AND STREAMLINED GENETIC TESTING

FOR ORDERING

**[www.centoportal.com](http://www.centoportal.com)**

FOR MORE INFORMATION

**[www.centogene.com](http://www.centogene.com)**

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