

# Transforming solutions for rare diseases

CENTOGENE Corporate Presentation May 2021



# **CENTOGENE Snapshot**

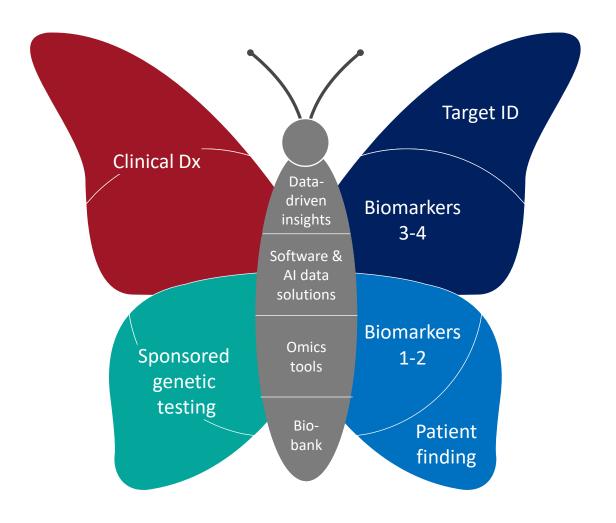
- Founded in 2006 in Rostock, Germany with other locations in Cambridge, MA and Berlin, Germany
- Listed on Nasdaq in November 2019 (Ticker: CNTG)
- 650+ employees with 2020 annual revenue of €128 million (€49 million in 2019)
- 30+ partnerships with biopharma partners
- ~600k patients in Bio/Databank



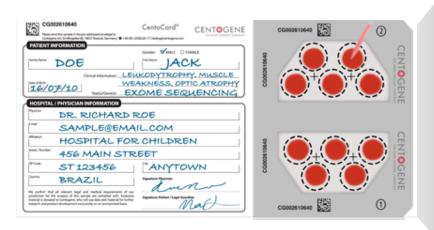
Finding and Connecting Rare Disease Patients and their Biology globally...



...to create patient centric, data-driven insights to drastically reduce the heavy burden of rare diseases



# CentoCard – a simple logistic & storage solution



- ✓ CE-marked
- ✓ Stable for 10+ years
- ✓ Ship via regular mail
- ✓ Available in 30+ languages
- ✓ Barcode for tracking
- ✓ Simple, efficient storage
- Contains consent to retest biomaterial



Allows for global market coverage

# Comprehensive suite of diagnostic solutions from one sample



# Exomes/Genomes

- ✓ CentoXome®
- ✓ CentoGenome®



# **NGS Panels Testing**

- ✓ Rare and Hereditary disease Panels
- ✓ Sanger, Del/Dup, CNV
- ✓ Hereditary cancer panels (CentoCancer®, CentoBreast®)
- ✓ Somatic Oncogenetics
- ✓ Biochemical Genetics Panels (Enzyme)





# Single Gene Sequencing

- ✓ Sanger
- ✓ NGS



# **Biochemistry Testing**

- ✓ Biomarker Analysis
- Enzyme activity



# CNVs + Mutation quantification



- Genome wide aCGH CentoArray Cyto™
- ✓ MLPA (~600)
- √ qPCR + ddPCR (~850)
- ✓ FLA/RPA (25)



## CentoScreen®

✓ Carrier Screening Panel - CentoScreen<sup>®</sup> (331 autosomal and X-linked recessive disorders, CNV, SMN1, FMR1 & CYP21A2)





# CentoNIPT®



✓ Non-Invasive-Prenatal - CentoNIPT® (T21, T18, T13, gender)

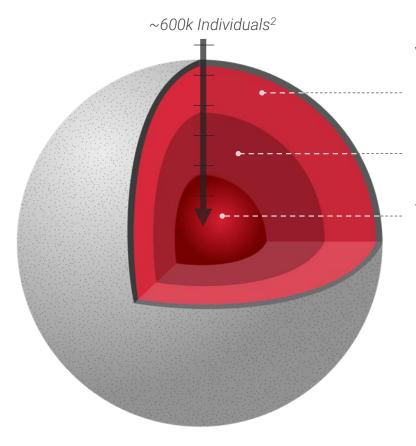






# Creating relevant datasets to foster innovation in value creation use cases for orphan drug discovery and development

Continued improvements in data quantity and data quality<sup>1</sup>



### VALUE CREATION USE CASES

Genetic Diagnostics & Patient Finding

Clinical Trial Support & Patient Stratification

Target & Drug Discovery

### **EXAMPLES**

SORD-related neuropathy

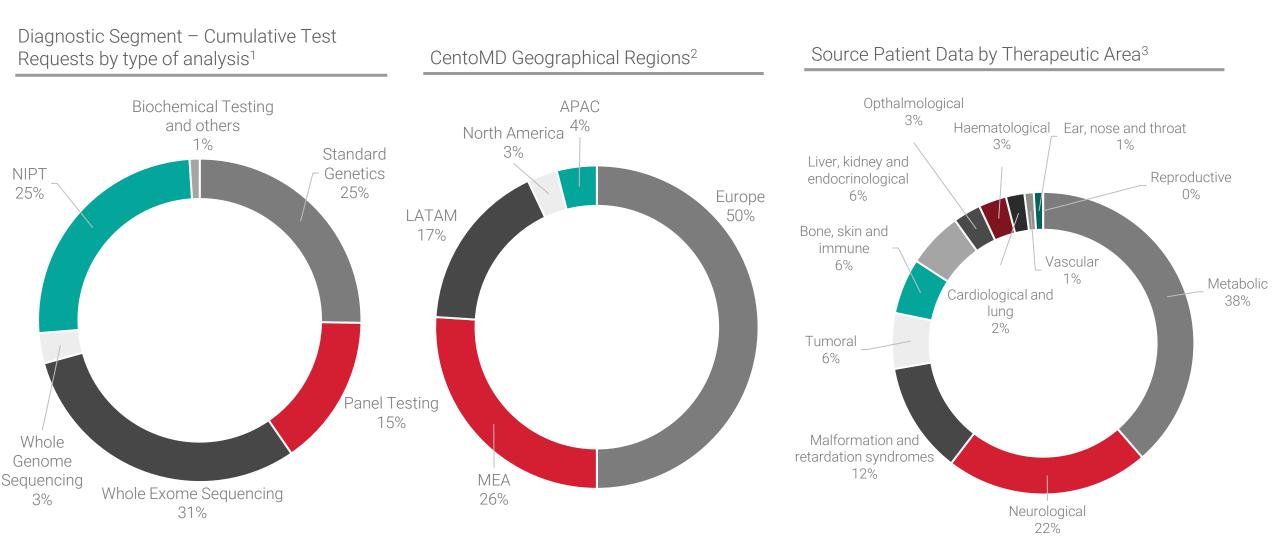
Parkinson's disease

Gaucher disease

<sup>&</sup>lt;sup>1</sup> Average number of HPO terms (Human Phenotype Ontology) per sample received from Clinical Diagnostics segment customers has increased from 5 to 8 in 2020 versus 2019.

<sup>&</sup>lt;sup>2</sup> Quantitative references illustrative per January 2021, reflective of registered individuals in CENTOGENE (laboratory) information systems related to the core business, i.e., Clinical Diagnostics and Pharma segment, but excl. COVID-19.

# Continued expansion of platform and repository



Compare Centogene Full-Year 2020 Annual Report.

<sup>2</sup> Represents geographic origin of 430,000 patients included in our CentoMD database 5.8 (per Dec. 31, 2020)

<sup>1</sup> Represents the cumulative 176,400 test requests (orders) received from our diagnostics segment between Jan. 1, 2016 – Dec. 31, 2020, split by type of analysis. "Standard Genetics" incl. single gene, CNV, mutation quantification products.

<sup>&</sup>lt;sup>3</sup> Represents the 12 therapeutic areas covered by over 3,941 associated phenotypes and approximately 199,000 individual HPO associations included in our CentoMD database 5.8 (per of Dec. 31, 2020)

# Pharma segment: Creating value for therapy development

Case study on Parkinson's disease - ROPAD Study & Denali cooperation



# 10,000+ Participants

# Additional Novel Insights

- Rare disease bio/databank offered insights into LRRK2 loss of function – de-risking the development process
- ROPAD Study: created one of the most comprehensive bio/databanks on genetic Parkinson's disease<sup>1</sup> to date
- Potential for identification of new drug targets outside of LRRK2



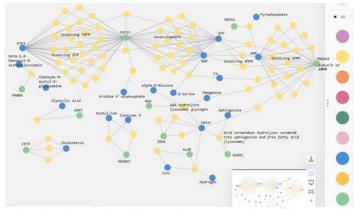
# Case Study: Gaucher disease

Revolutionizing the understanding of rare diseases by connecting patients and their biology

•	Publications driving scientific understanding on Gaucher since 2013	>10
•	Large cohort of patients diagnosed w. Gaucher disease	> 1,800
•	Majority of patients with research consent	> 55%
•	Patient-derived fibroblast samples	>130
•	Patient-derived tissue-specific cellular models from iPSCs	>10
•	Patients in LysoProve study for longitudinal follow- ups	> 250

# Target discovery process:

- Disease model
  - Multilayer / Multiomics tools
- Novel target / data mining
- Target identificationCompound screening
  - Drug target validation



Novel

Targets

evotec

Al-based analysis via knowledge graph integrating millions of datapoints

# Value creation through CENTOGENE's platform for Pharma partners

# Value for Biopharma Industry

# Biomarker Development

- Developing biomarkers for high throughput patient testing and providing the ability to monitor patients
- Support in monitoring progression of disease and demonstrating efficacy for potential therapies

# Development Acceleration

- Expedited drug screening during discovery
- Leverage existing CentoMD database & repository to identify patients and aid study enrollment

# Patient Identification

 Utilize sponsored genetic testing or biomarker to accelerate patient identification to increase commercial adoption

### Value for Patients

# Early Diagnosis

• Expedited treatment through early diagnosis

# Access to Therapies

 Connecting patients and physicians to currently available and future therapies

# Personalize d Medicine

 Ability to monitor patient's disease state, allowing for individualized dosing and optimal patient outcome

# New extensive biomarker approach

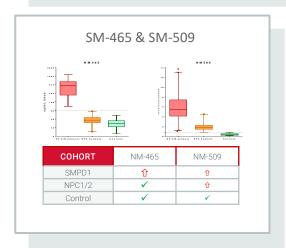
### SINGLE BIOMARKERS

- Lyso-GB1 like (highly specific)
- Patient finding, diagnostics and monitoring of patients

# Lyso-Gb1 2000200015

# COMBINATION BIOMARKERS

- 2-10 Biomarkers, combination results in increase of specificity for certain diseases
- Diagnostics and patient finding



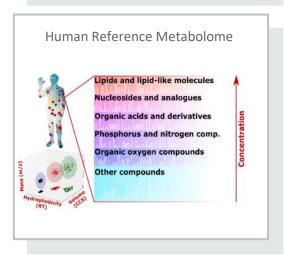
### PATTERN

- Pattern of complete measurement
  - Aims to direct diagnostics & increase diagnostic yield

# Hyaline Fibromatosis Heatmap high low control HFS samples samples

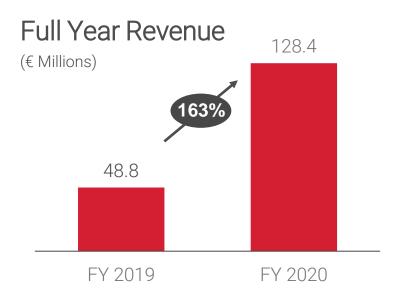
## REFERENCE METABOLOME

 Qualitative & Quantitative characterization of metabolomics features



Biomarker = molecule, n Biomarkers for 1 disease or/and test

# FY 2020: Delivering very strong financial results in unprecedented year



- Revenues more than doubled in FY 2020 compared to FY 2019, driven by growth from COVID-19 testing
- Pharma revenues decreased 21%, while Clinical Diagnostics revenues (excl. COVID) decreased 19% compared to FY 2019
- Commercial COVID-19 testing contributed €59.8 million in revenues in Q4 2020, up from €27.4 million in Q3 2020

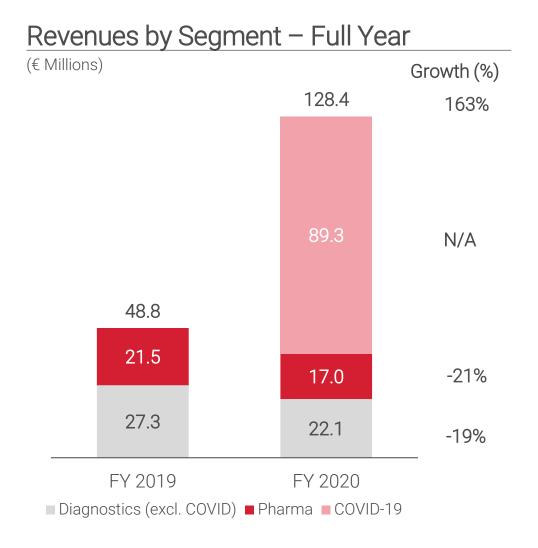
Strong financial performance

> Core business recovery

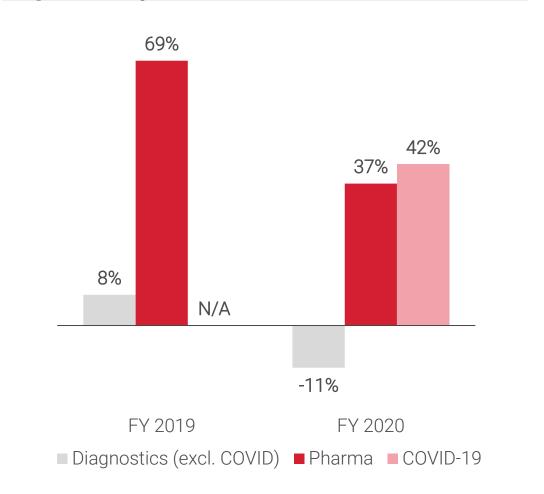
Path forward

- Revenues more than doubled in FY 2020 compared to FY 2019, for a record year overall
- Achieved positive and highest annual adjusted EBITDA in company history driven by COVID-19 testing revenues in H2 of 2020
- Diagnostic sample order intakes value from the core business continued to recover throughout 2020, with Q1 2021 approx. on par with Q1 2020
- Diagnostics recovery and **newly signed Pharma partnership** deals indicate a return to solid core business growth
- Positive adjusted EBITDA contribution from commercial COVID-19 allows continuous investments into the Company's rare disease core business
- Virtual Investor Event planned for June 22<sup>nd</sup>, with leadership to outline strategy and direction of the company in its next phase of growth

# Revenue grew by >2.5x compared to prior year



# Segment Adjusted EBITDA – Full Year



# Status & Outlook

Strong finish to 2020

- Triple digit revenues for FY 2020
- Financial tailwind from COVID-19 testing used to make key strategic investments in core business segments

Diagnostics and Pharma Segments

- Firm focus on core business in FY 2021: Diagnostics and Pharma segments
- Diagnostic sample order intakes returning to pre-pandemic levels
- Pharma deal momentum continuing from H2 2020 into 2021
- Bio/databank as a key value driver for orphan drug development

Covid-19 Testing

• Volumes robust in 2021 YTD, with pandemic uncertainties still remaining

Save the date

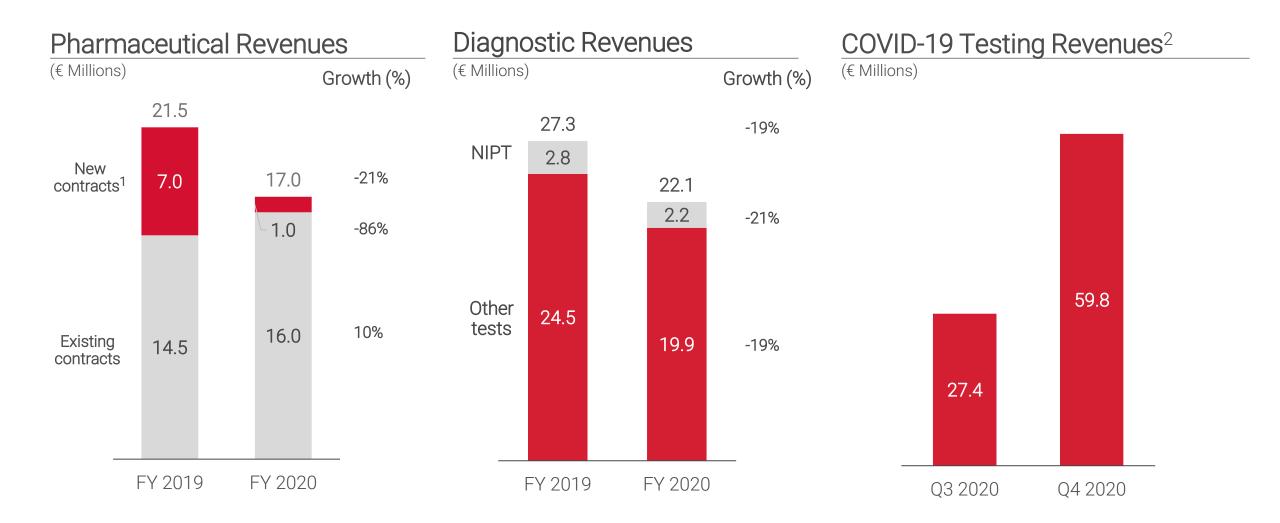
 Virtual Investor Event on June 22, 2021, featuring new and restructured management team



# Thank You



# FY 2020 revenues by segments



<sup>&</sup>lt;sup>1</sup> New contracts are defined as contracts signed in the last twelve months

<sup>&</sup>lt;sup>2</sup> As COVID-19 testing is a new business for the year, Q3 2020 is used as a reference

# Income statement<sup>1</sup>

# € Thousands

# For the years ended December 31,

	2019	2020	
Revenues	48,780	128,381	
Cost of sales	26,005	86,378	
Gross profit	22,775	42,003	
Research and development expenses	9,590	14,935	
General administrative expenses	23,160	37,665	
Selling expenses	9,254	7,580	
Impairment of financial assets	752	3,738	
Other operating income	3,781	2,394	
Other operating expenses	1,284	182	
Real estate transfer tax expenses	1,200	-	
Operating result	(18,684)	(19,703)	

# Cash flow & balance sheet<sup>1</sup>

		For the year ended December 31, 2019 € Millions	For the year ended December 31, 2020 € Millions	Period-over- period change
	Cash flow from/(used in) operating activities	(7.8)	8.5	16.3
Key Items	Cash flow from/(used in) investing activities	14.2	(16.2)	(30.4)
	Cash flow from financing activities	25.5	14.8	(10.7)

		As of Dec 31, 2019 € Millions	As of Dec 31, 2020 € Millions	Period-over- period change
	Cash & cash equivalents	41.1	48.2	7.1
Key Items	Debt outstanding <sup>2</sup>	27.0	24.1	(2.9)
	Net debt / (net cash)	(14.1)	(24.1)	10.0

<sup>&</sup>lt;sup>1</sup> Selected information

<sup>&</sup>lt;sup>2</sup> Debt outstanding includes non-current loans, non-current lease liabilities, current loans and current lease liabilities.

# Management focus on value creation in core segments



Andrin Oswald, M.D. Chief Executive Officer

# Diagnostics



Maximilian Schmid Chief Commercial Officer



Peter Bauer Chief Genomic Officer

# Pharma



Sun Kim Chief Commercial Officer



Phil Lambert
Chief Scientific Officer

# Functions



Nathalie Daste Chief Human Resources Officer



Volkmar Weckesser
Chief Information Officer



Richard Stoffelen
Chief Financial Officer



Florian Vogel
Chief Process Officer

Key Pharma partnership examples

**Drug Discovery** 

Clinical Development

Commercialization



- Data access and research collaboration
- Potential discovery and validation of novel targets for new therapies in rare diseases



- Help with trial design and patient enrollment
- Shorter development timeline through patient enrollment acceleration (LRRK-2 Parkinson's disease)



- Assist in diagnosis of patients with lysosomal storage disorder
- High throughput testing via proprietary biomarkers