

# Next-generation Sequencing: Emerging Clinical Applications and Global Markets

https://marketpublishers.com/r/NFC98AA6B7BEN.html

Date: January 2024 Pages: 492 Price: US\$ 5,500.00 (Single User License) ID: NFC98AA6B7BEN

# Abstracts

Report Scope:

The scope of the report includes clinical NGS technologies, applications, industries, initiatives, patents, and companies. The markets for NGS-based diagnostics are given for the years 2020, 2021, 2022, 2023 and 2028.

This report reviews the main sequencing technologies and explains why genetic variation is important in clinical testing. It then discusses some of the significant research initiatives that impact clinical NGS applications. Liquid biopsy formats are discussed. The main market driving forces are also discussed.

The report examines the markets by test complexity, clinical indication and test purpose. Test complexity refers to the plex level (i.e., the number of genetic markers that can be analyzed within a sample) and coverage (e.g., the extent to which the genome is covered) of the test. Examining the market by test complexity provides valuable insight into which products (e.g., sample preparation, NGS instrument, informatics, etc.) will be in demand in the future.

The report provides market data and forecasts for NGS diagnostics by specific applications, including those for oncology, cardiovascular diseases, clinical microbiology/infectious diseases, Mendelian disorders, metabolic/immune disorders, neurological disorders, reproductive health, and transplant medicine.

Specific geographic markets are discussed, namely North America, Europe, Asia-Pacific, and the Rest of the World.



Industry sectors analyzed include DNA sequencing instruments; long-read sequencing; sequencing informatics; target enrichment; CTC capture and detection; liquid biopsy; cancer screening/early detection; direct-to-consumer testing; and noninvasive prenatal testing.

More than 100 companies in the clinical NGS industry are profiled in this report.

BCC Research also provides a summary of the recent, primary industry acquisitions and strategic alliances, including key alliance trends.

Report Includes:

41 data tables and 237 additional tables

An overview of the global market for emerging clinical applications of nextgeneration sequencing

Analysis of global market trends, featuring historical revenue data for 2020 to 2022, estimates for 2023, as well as forecasts for 2028, including projections of compound annual growth rates (CAGRs) through 2028

Evaluation of the current market size and revenue growth prospects, accompanied by a market share analysis by disease indication, test complexity, test purpose, application and geographic region

Discussion of market opportunities for clinical NGS products, clinical applications, industry structure, regulatory scenarios and use of NGS-based diagnostics and technologies

Coverage of genome mapping programs, technological advances and innovations in NGS platforms, and the Ion Torrent Genexus System from Thermo Fisher Scientific and the Magnis NGS Prep System Ifrom Agilent Technologies Inc

Description of NGS-oriented tests such as non-invasive prenatal testing (NIPT) and pre-implantation genetic testing (PGT), and a discussion of their advantages

Market share analysis of the key companies and a look at their proprietary technologies, strategic alliances and other key market strategies, plus a patent



analysis

Profiles of the leading players, including Illumina Inc., Thermo Fisher Scientific Inc., QIAGEN, Agilent Technologies Inc., and BGI Genomics



# Contents

#### **CHAPTER 1 INTRODUCTION**

Study Goals and Objectives Reasons for Doing This Study Scope of Report Information Sources Methodology What's New in This Report? Geographic Breakdown Segmentation Breakdown

#### **CHAPTER 2 SUMMARY AND HIGHLIGHTS**

Market Outlook Market Summary

# **CHAPTER 3 OVERVIEW**

Introduction Liquid and Tissue Biopsy Clinical NGS Market Growth Drivers of Clinical NGS Key Trends Industry

# **CHAPTER 4 TECHNOLOGY BACKGROUND**

Importance of DNA Genetic Variation and Analysis Genetic Analysis Technologies Sequencing in Clinical Applications Sequencing Technologies History of DNA Sequencing Sanger Sequencing Technology NGS Platforms Short-Read Platforms Long-Read Platforms



Informatics Technologies Base Calling Mapping to a Reference Sequence Variant Analysis Artificial Intelligence Technologies Clinical Sequencing Technology Challenges

# CHAPTER 5 CLINICAL NGS INITIATIVES AND EMERGING TECHNOLOGIES

**R&D** Initiatives and Programs

#### **1+ MILLION GENOMES**

Access to Treatment and Testing (ACTT) Access to Comprehensive Genomic Profiling Coalition (ACGP) Africa Pathogen Genomics Initiative **Blood Profiling Atlas** Cancer-ID Cancer Moon Shots Program **China Precision Medicine Initiative** ClinGen CTC Trap Consortium diaRNAgnosis Project Early Cancer Detection Consortium **EpiFemCare** France Genomic Medicine Plan Friends of Cancer Research Project Genomic Medicine Sweden HCA-Organoid Human Cell Atlas Human Immunomics Initiative Immunomonitor Consortium Integration of Imaging and Fluid-Based Tumor Monitoring in Cancer Therapy Program Intervene Liquid Biopsies and Imaging for Improved Cancer Care Liquid Biopsy-Based Malignant Tumor Early Screening Technology Research and **Development Project** Liver Cancer Early Screening Comprehensive Prevention and Control Project Lung Cancer Genomic Screening Project for Individualized Medicine in Asia



Million Veteran Program Medical Genome Initiative MedSeq **Precision Medicine Initiative** Prompt **QuIP** Project **SPHERES** Target ALS Diagnosis Initiative TopMed **Treehouse Childhood Cancer Initiative** Very Rare Cancer Consortium Worldwide Innovative Networking (WIN) Consortium Single-Cell Research Cambridge Single-Cell Analysis Core Facility Harvard Medical School Single-Cell Core Mayo Medical Genome Facility National Center for Single-Cell Biology Next-Generation Single-Cell Analysis Program Single-Cell Analysis Core UC San Francisco Single-Cell Analysis Center The Wistar Institute of Anatomy and Biology **Population Sequencing Projects** 

# **CHAPTER 6 CLINICAL NGS APPLICATIONS**

Introduction Cancer Applications Precision Medicine Liquid Biopsy Biomarkers Mendelian Disorders Applications Reproductive Health Applications Noninvasive Prenatal Testing Newborn Screening Microbiology and Infectious Disease Applications Complex Disorders Applications

# **CHAPTER 7 CLINICAL NGS INDUSTRY**

Sequencing Instrument Industry



Companies Third-Generation Sequencing Industry Sequencing Informatics Industry Target Enrichment and Amplification Industry CTC Capture and Detection Industry Liquid Biopsy Assay Industry Liquid Biopsy Cancer Screening/Early Detection Industry Health-Focused DTC Genetic Testing Industry: Two Market Models DTC Clinical Health Genetic Testing Industry Noninvasive Prenatal Testing (NIPT) Industry

# **CHAPTER 8 ESG DEVELOPMENT**

Introduction to ESG The Sustainability of NGS in Industry Case Study BCC Research Viewpoint

# **CHAPTER 9 ACQUISITIONS AND STRATEGIC ALLIANCES**

Acquisitions Strategic Alliances Key Trends

# **CHAPTER 10 CLINICAL NGS MARKETS**

Market Dynamics Market Drivers Impact of COVID-19 on the Clinical NGS Markets Clinical NGS Market by Disease Category Clinical NGS Market by Test Complexity Clinical NGS Market by Purpose of Test Clinical NGS Market in Oncology Market by Indication in Oncology NGS Market in Oncology by Purpose of Test NGS Market in Oncology by Test Complexity Clinical NGS Market in Cardiology NGS Market in Cardiology by Purpose of Test NGS Market in Cardiology by Purpose of Test

Next-generation Sequencing: Emerging Clinical Applications and Global Markets



Clinical NGS Market in Mendelian Disorders NGS Market in Mendelian Disorders by Test Complexity Clinical NGS Market in Metabolic/Immune Disorders NGS Market in Metabolic/Immune Disorders by Purpose of Test NGS Market in Metabolic/Immune Disorders by Test Complexity Clinical NGS Market in Neurology NGS Market in Neurology by Test Purpose NGS Market in Neurology by Test Complexity Clinical NGS Market in Reproductive Health Reproductive Health Market by Test Application NGS Market in Reproductive Health by Purpose of Test NGS Market in Reproductive Health by Test Complexity Clinical NGS Market in Microbiology and Infectious Diseases NGS Market in Microbiology and Infectious Diseases by Purpose of Test NGS Market in Microbiology and Infectious Diseases by Test Complexity Clinical NGS Market in Transplantation NGS Market in Transplantation by Organ Type NGS Market in Transplantation by Purpose of Test NGS Market in Transplantation by Test Complexity Clinical NGS Market by Region Global Market for NGS in Oncology by Region Global Market for NGS in Reproductive Health by Region Global Market for NGS in Transplantation by Region

# **CHAPTER 11 PATENT REVIEW**

Patents on Circulating Tumor Cells Patents on Exosomes Patents on Cell-Free DNA Patents Related to Biomarkers Patent Considerations for the Use of Artificial Intelligence in Cancer Diagnostics Liquid Biopsy Patent Litigation

# **CHAPTER 12 COMPANY PROFILES**

Competitive Landscape Top 5 Companies AGILENT TECHNOLOGIES INC. BGI GENOMICS CO. LTD



ILLUMINA INC. QIAGEN THERMO FISHER SCIENTIFIC INC. **Other Companies** ACCURAGEN HOLDINGS ADAPTIVE BIOTECHNOLOGIES ALCEN AMBRY GENETICS AMOY DIAGNOSTICS CO. LTD. ANGLE PLC **APOSTLE SCIENCES ARCEDI BIOTECH APS** ARMONICA TECHNOLOGIES INC. **ARUP LABORATORIES** ASURAGEN INC. **BAYLOR GENETICS** BECTON, DICKINSON AND CO. **BERRY GENOMICS BEIJING BIOCAPTIVA LTD.** BIOCEPT INC. BIODESIX BIOFLUIDICA **BIOLIDICS LTD BIOLOGICAL DYNAMICS** BIOMODAL **BIONANO GENOMICS BIO-RAD LABORATORIES INC. BIO-TECHNE** C2I GENOMICS CAPIO BIOSCIENCES CAREDX INC. CARIS LIFE SCIENCE CEGAT GMBH **CELL MICROSYSTEMS CENTRILLION GENOMICS TECHNOLOGIES CLARET BIOSCIENCE CLEAR NOTE HEALTH** CLINICAL GENOMICS TECHNOLOGIES **CYCLOMICS** 





CYGNUS BIOSCIENCES CO. LTD. DANAHER DANTE LABS DATAR CANCER GENETICS LTD. **DELFI DIAGNOSTICS** DIACARTA DIAGNOLOGIX LLC **DIAGNOMICS INC.** DIAMIR BIO **DNALYTICS** DNANEXUS INC. EARLYDIAGNOSTICS EONE-DIAGNOMICS GENOME CENTER CO. LTD. EPIC SCIENCES EPIGENOMICS AG **EUROFINS GENOMICS** EVERLY HEALTH INC. EXACT SCIENCES CORP. EXOPERT EXOSOMICS INC. **EZLIFE BIO** FABRIC GENOMICS INC. F. HOFFMANN-LA ROCHE LTD FLUXION BIOSCIENCES INC. FREENOME HOLDINGS INC. FULGENT GENETICS FULL GENOMES CORP. GENE BY GENE LTD. **GENEDX LLC GENESEQ BIOSCIENCES GENOMONCOLOGY LLC** GENOSABER GRAIL INC. **GUARDANT HEALTH HELIO GENOMICS** HELIX INC. HTG MOLECULAR DIAGNOSTICS INC. IMAGIA CANEXIA HEALTH INCELLDX INC.



INEX INNOVATE PRIVATE LTD INOVIQ INTERPACE BIOSCIENCES INC. INVITAE CORP. INVIVOSCRIBE INC. JABREHOO MED TECH CO. LTD. JBS SCIENCE JUMPCODE GENOMICS INC. KONINKLIJKE PHILIPS N.V. LABGENOMICS CO. LTD. LABORATORY CORPORATION OF AMERICA HOLDINGS LIQUID BIOPSY LABS LUCENCE HEALTH INC. LUNGLIFE AI INC. MACROGEN INC. MAPMYGENOME MDXHEALTH INC. **MEDGENOME** MEDICOVER GENETICS MENARINI SILICON BIOSYSTEMS SPA **MERCK KGAA** MICAREO RARE CELL DIAGNOSTICS MICRONOMA INC. **MIR SCIENTIFIC MUTANTDX** MYRIAD GENETICS INC. NANOSTRING TECHNOLOGIES INC. NATERA INC. **NEBULA GENOMICS NEOGENOMICS LABORATORIES NEW ENGLAND BIOLABS** NEW HORIZON HEALTH LTD. NOVIGENIX SA NOVOGENE CO. LTD. NRICHDX INC. NUPROBE INC. NX PRENATAL INC. **ONCIMMUNE HOLDINGS PLC** ONCOCYTE CORP.



**ONCODNA OPKO HEALTH** ORCHID OXFORD NANOPORE TECHNOLOGIES LTD. PACIFIC BIOSCIENCES OF CALIFORNIA INC. PANGAEA ONCOLOGY PERSONAL GENOME DIAGNOSTICS INC. PERSONALIS INC. PHASE SCIENTIFIC PIERIANDX PREDICINE PRENETICS GROUP QCDX LLC QUANTAPORE QUANTGENE INC. QUANTUMDX QUEST DIAGNOSTICS RARECELLS INC. RAVGEN **REAL TIME GENOMICS RESOLUTION BIOSCIENCE INC.** SAGA DIAGNOSTICS AB SANO GENETICS SCREENCELL SEEKIN INC. SEQUENCING.COM SEVEN BRIDGES GENOMICS INC. SINGLE TECHNOLOGIES SMARTCATCH STAGEZERO LIFE SCIENCES. LTD. STRAND STRATA ONCOLOGY SYAPSE INC. SYSMEX INOSTICS GMBH TAKARA BIO INC. **TELEXOS GMBH** TWINSTRAND BIOSCIENCES INC. TWIST BIOSCIENCE UNCHAINED LABS

Next-generation Sequencing: Emerging Clinical Applications and Global Markets





UNIVERSAL DX VELA DIAGNOSTICS VERACYTE VOLITIONRX VORTEX BIOSCIENCES YOURGENE HEALTH YIKON GENOMICS CO. LTD.



# **List Of Tables**

### LIST OF TABLES

Table A : Scope of the Report

- Summary Table : Global Market for Clinical Applications of Next-Generation
- Sequencing, by Disease Class, Through 2028
- Table 1 : Global Market for Clinical Next-Generation Sequencing, by Disease Type, Through 2028
- Table 2 : Forces Influencing Growth in the Clinical NGS Market
- Table 3 : Key Trends in the Clinical NGS Testing Market
- Table 4 : Clinical NGS Industry Subsectors
- Table 5 : DNA Chemical Building Blocks
- Table 6 : DNA Translation and Transcription
- Table 7 : Long-Range DNA Structure
- Table 8 : Genetic Variant Types
- Table 9 : Molecular Diagnostic Technology Platforms
- Table 10 : Genome Coverage of PCR, Microarray and NGS Technology Platforms
- Table 11 : Genetic Testing Coverage
- Table 12 : Key Near- to Mid-term Segments of NGS Diagnostics
- Table 13 : DNA Sequencing Historical Timeline, 1977-2023
- Table 14 : Sequencing Technology Development, 1990-2020
- Table 15 : Cost of Sequencing a Single Human Genome, 2001-2022
- Table 16 : Summary of Sanger Sequencing
- Table 17 : Improvements in Sanger Sequencing
- Table 18 : NGS Technologies
- Table 19 : Illumina NGS Workflow
- Table 20 : Thermo Fisher Scientific NGS Workflow
- Table 21 : NGS Bioinformatics Workflow
- Table 22 : Sequence Annotation Steps
- Table 23 : Types of AI in Healthcare
- Table 24 : Future Challenges in Implementing Clinical NGS
- Table 25 : Clinical NGS Research and Development Initiatives and Programs
- Table 26 : Single-Cell Core Research Facilities
- Table 27 : Population Sequencing Projects
- Table 28 : Clinical NGS Near- to Mid-term Applications
- Table 29 : Personalized Medicine Driven by Common Cancer Genetic Mutations
- Table 30 : Liquid Biopsy Biomarkers
- Table 31 : NGS-Based Cancer Diagnostics Market Segments



- Table 32 : Mendelian Disorders Applications
- Table 33 : Reproductive Health Screening Applications
- Table 34 : Ethical Issues Associated with NIPT
- Table 35 : Microbiology/Infectious Disease Applications
- Table 36 : Complex Disorders Applications
- Table 37 : Key Segments and Trends in the Clinical NGS Industry
- Table 38 : NGS and 3GS Industry Company Positioning
- Table 39 : Long-Read Sequencing Industry
- Table 40 : Sequencing Informatics Industry
- Table 41 : NGS Target Enrichment Industry
- Table 42 : CTC Separations Industry
- Table 43 : Liquid Biopsy Assay Industry: Company Focus
- Table 44 : Examples of NGS-Based Liquid Biopsy Market Differentiation
- Table 45 : Multi-Cancer Screening Test Desired Features
- Table 46 : Shed Rates of Various Cancers
- Table 47 : Cancer Screening Liquid Biopsy Industry
- Table 48 : Thrive Earlier Detection (Exact Sciences) Cancer Targets
- Table 49 : Colorectal Cancer Early Detection/Screening Liquid Biopsy Industry
- Table 50 : Key Clinical Trials on Single- and Multi-Cancer Liquid Biopsy Assays
- Table 51 : Clinical-Grade Health DTC Genetic Testing Companies
- Table 52 : NIPT Industry
- Table 53 : Key Focus Areas in ESG Metrics
- Table 54 : ESG Rankings for Major Companies in the NGS Arena
- Table 55 : Illumina 2030 ESG Targets
- Table 56 : Clinical NGS Industry Acquisitions, January 2019–October 2023
- Table 57 : Strategic Alliances in Clinical NGS, January 2019–April 2021
- Table 58 : Key Forces Driving Growth in Clinical NGS and Their Implications
- Table 59 : Global Market for Clinical NGS, by Disease Category, Through 2028
- Table 60 : Global Market for Clinical NGS, by Test Complexity, Through 2028
- Table 61 : Global Market for Clinical NGS, by Purpose of Test, Through 2028
- Table 62 : Limitations of Tissue Biopsy in Cancer Applications
- Table 63 : Low-Frequency Mutation Detection
- Table 64 : Global Market for Clinical NGS in Oncology, by Indication, Through 2028
- Table 65 : Five-Year Survival Rate for Ovarian Cancer
- Table 66 : National Institutes of Health Liquid Biopsy Early Detection Initiative
- Table 67 : Clinical Trials on Lung Cancer Liquid Biopsies
- Table 68 : Global Market for Clinical NGS in Oncology, by Purpose of Test, Through 2028
- Table 69 : MRI and Liquid Biopsy Methods



Table 70 : Early Detection Tissue of Origin Approaches

Table 71 : Global Market for Clinical NGS in Oncology, by Test Complexity, Through 2028

Table 72 : European Society of Medical Oncology NGS Recommendations for Metastatic Cancers, August 2020

Table 73 : Global Market for Clinical NGS in Cardiology Diagnostics, by Purpose of Test, Through 2028

Table 74 : NGS-Based Dilated Cardiomyopathy Test Providers

Table 75 : Global Market for Clinical NGS in Cardiology Diagnostics, by Test Complexity, Through 2028

Table 76 : Global Market for Clinical NGS in Mendelian Disorder Diagnostics, by Purpose of Test, Through 2028

Table 77 : Global Market for Clinical NGS in Mendelian Disorder Diagnostics, by Test Complexity, Through 2028

Table 78 : Global Market for Clinical NGS in Metabolic and Immune Disorder Diagnostics, by Purpose of Test, Through 2028

Table 79 : Multiple Sclerosis Diagnostic Technologies

Table 80 : Global Market for Clinical NGS in Metabolic and Immune Disorder

Diagnostics, by Test Complexity, Through 2028

Table 81 : Global Market for Clinical NGS in Neurological Diagnostics, by Purpose of Test, Through 2028

Table 82 : Global Market for Clinical NGS in Neurological Diagnostics, by Test Complexity, Through 2028

Table 83 : Global Market for Clinical NGS in Reproductive Health, by Application, Through 2028

Table 84 : Global NGS-Based NIPT Market, by Risk Type, Through 2028

Table 85 : Global Market for Clinical NGS in Reproductive Health, by Purpose of Test, Through 2028

Table 86 : Global Market for Clinical NGS in Reproductive Health, by Test Complexity, Through 2028

Table 87 : NGS-Based Infectious Disease Landscape

Table 88 : Global Market for Clinical NGS-Based Microbiology and Infectious DiseaseDiagnostics, by Purpose of Test, Through 2028

Table 89 : Global Market for Clinical NGS-Based Microbiology and Infectious Disease Diagnostics, by Test Complexity, Through 2028

Table 90 : NGS in Infectious Disease Diagnostics

Table 91 : Global Market for Clinical NGS in Transplantations, by Organ, Through 2028

Table 92 : Transplant Procedures Performed in the U.S., by Organ, 2018–2020

Table 93 : Global Market for Clinical NGS in Transplantation, by Purpose of Test,



Through 2028

Table 94 : Global Market for Clinical NGS in Transplantation, by Test Complexity, Through 2028 Table 95 : Global Market for Clinical NGS, by Region, Through 2028 Table 96 : Global Market for Clinical NGS in Oncology, by Region, Through 2028 Table 97 : Global Market for NGS in Reproductive Health, by Region, Through 2028 Table 98 : Global Market for Clinical NGS in Transplantation, by Region, Through 2028 Table 99 : Patent Activity on Circulating Tumor Cells (CTCs), by Country/Region, January 2010–June 2020 Table 100 : List of Select Patents Filed for Circulating Tumor Cells, 2020-2023 Table 101 : Patent Activity on Exosomes, by Country/Region, January 2010–December 2020 Table 102 : List of Select Patents Filed for Exosomes, 2020-2023 Table 103 : Patent Activity on Cell-Free DNA, by Country/Region, January 2010-December 2020 Table 104 : List of Select Patents Filed for Cell-Free DNA, 2020-2023 Table 105 : Patent Activity on Cancer Biomarkers, by Country/Region, January 2010–December 2020 Table 106 : List of Select Patents Filed for Cancer Biomarkers, 2020-2023 Table 107 : Status of NGS-Based Liquid Biopsy Patent Disputes, 2023 Table 108 : Global Market Ranking, 2022 Table 109 : Agilent Technologies Inc.: Company Snapshot Table 110 : Agilent Technologies Inc.: Financial Performance, 2021 and 2022 Table 111 : BGI Genomics Co. Ltd: Company Snapshot Table 112 : Illumina Inc.: Company Snapshot Table 113 : Illumina Inc.: Financial Performance, 2021 and 2022 Table 114 : Qiagen: Company Snapshot Table 115 : Qiagen NV: Financial Performance, 2021 and 2022 Table 116 : Thermo Fisher Scientific Inc.: Company Snapshot Table 117 : Thermo Fisher Scientific Inc.: Financial Performance, 2021 and 2022 Table 118 : AccuraGen Holdings: Company Snapshot Table 119 : Adaptive Biotechnologies .: Company Snapshot Table 120 : Alcen: Company Snapshot Table 121 : Ambry Genetics: Company Snapshot Table 122 : Amoy Diagnostics Co. Ltd.: Company Snapshot Table 123 : Angle Plc: Company Snapshot Table 124 : Apostle Sciences: Company Snapshot Table 125 : Arcedi Biotech ApS: Company Snapshot Table 126 : Armonica Technologies Inc.: Company Snapshot



- Table 127 : Arup Laboratories: Company Snapshot
- Table 128 : Asuragen Inc.: Company Snapshot
- Table 129 : Baylor Genetics: Company Snapshot
- Table 130 : BD: Company Snapshot
- Table 131 : Berry Genomics Beijing: Company Snapshot
- Table 132 : Biocaptiva Ltd.: Company Snapshot
- Table 133 : Biocept Inc.: Company Snapshot
- Table 134 : Biodesix: Company Snapshot
- Table 135 : BioFluidica: Company Snapshot
- Table 136 : Biolidics Ltd.: Company Snapshot
- Table 137 : Biological Dynamics: Company Snapshot
- Table 138 : biomodal: Company Snapshot
- Table 139 : Bionano Genomics: Company Snapshot
- Table 140 : Bio-Rad Laboratories Inc: Company Snapshot
- Table 141 : Bio-Techne: Company Snapshot
- Table 142 : C2i Genomics: Company Snapshot
- Table 143 : Capio Biosciences: Company Snapshot
- Table 144 : CareDx Inc.: Company Snapshot
- Table 145 : Caris Life Sciences: Company Snapshot
- Table 146 : CeGaT GmbH: Company Snapshot
- Table 147 : Cell Microsystems: Company Snapshot
- Table 148 : Centrillion Technologies: Company Snapshot
- Table 149 : Claret Bioscience: Company Snapshot
- Table 150 : ClearNote Health: Company Snapshot
- Table 151 : ClearNote Health: Company Snapshot
- Table 152 : Cyclomics: Company Snapshot
- Table 153 : Cygnus Biosciences Co. Ltd: Company Snapshot
- Table 154 : Danaher: Company Snapshot
- Table 155 : Dante Labs: Company Snapshot
- Table 156 : Datar Cancer Genetics: Company Snapshot
- Table 157 : Delfi Diagnostics: Company Snapshot
- Table 158 : DiaCarta: Company Snapshot
- Table 159 : Diagnologix LLC: Company Snapshot
- Table 160 : Diagnomics Inc.: Company Snapshot
- Table 161 : Diamir Bio: Company Snapshot
- Table 162 : DNAlytics: Company Snapshot
- Table 163 : DNAnexus, Inc.: Company Snapshot
- Table 164 : EarlyDiagnostics: Company Snapshot
- Table 165 : Eone Diagnomics Genome Center Co. Ltd: Company Snapshot



Table 166 : Epic Sciences: Company Snapshot Table 167 : Epigenomics AG: Company Snapshot Table 168 : Eurofins Genomics: Company Snapshot Table 169 : Everly Health Inc.: Company Snapshot Table 170 : Exact Sciences Corp.: Company Snapshot Table 171 : Exopert: Company Snapshot Table 172 : Exosomics Inc.: Company Snapshot Table 173 : EZlife Bio: Company Snapshot Table 174 : Fabric Genomics Inc.: Company Snapshot Table 175 : F. Hoffmann-La Roche Ltd: Company Snapshot Table 176 : Fluxion Biosciences Inc.: Company Snapshot Table 177 : Freenome Holdings Inc.: Company Snapshot Table 178 : Fulgent Genetics: Company Snapshot Table 179 : Full Genomes Corp.: Company Snapshot Table 180 : Gene by Gene Inc.: Company Snapshot Table 181 : GeneDx LLC: Company Snapshot Table 182 : Geneseg Biosciences: Company Snapshot Table 183 : GenomOncology LLC: Company Snapshot Table 184 : GenoSaber: Company Snapshot Table 185 : Grail Inc.: Company Snapshot Table 186 : Guardant Health: Company Snapshot Table 187 : Helio Genomics: Company Snapshot Table 188 : Helix Inc.: Company Snapshot Table 189 : HTG Molecular Diagnostics Inc.: Company Snapshot Table 190 : Imagia Canexia Health: Company Snapshot Table 191 : IncellDx: Company Snapshot Table 192 : Inex Innovate Private Ltd.: Company Snapshot Table 193 : INOVIQ: Company Snapshot Table 194 : Interpace Biosciences Inc.: Company Snapshot Table 195 : Invitae Corp.: Company Snapshot Table 196 : Invivoscribe Inc.: Company Snapshot Table 197 : Jabrehoo Med Tech Co. Ltd.: Company Snapshot Table 198 : JBS Science: Company Snapshot Table 199 : Jumpcode Genomics Inc.: Company Snapshot Table 200 : Koninklijke Philips N.V.: Company Snapshot Table 201 : Labgenomics: Company Snapshot Table 202 : Laboratory Corporation of America Holdings: Company Snapshot Table 203 : Liquid Biopsy Labs: Company Snapshot Table 204 : Lucence Health Inc.: Company Snapshot



Table 205 : LungLife AI: Company Snapshot Table 206 : Macrogen Inc.: Company Snapshot Table 207 : MapmyGenome: Company Snapshot Table 208 : mdxhealth: Company Snapshot Table 209 : MedGenome: Company Snapshot Table 210 : Medicover Genetics: Company Snapshot Table 211 : Menarini Silicon Biosystems: Company Snapshot Table 212 : Merck KGaA: Company Snapshot Table 213 : MiCareo Inc.: Company Snapshot Table 214 : Micronoma INC.: Company Snapshot Table 215 : miR Scientific: Company Snapshot Table 216 : MutantDx: Company Snapshot Table 217 : Myriad Genetics, Inc.: Company Snapshot Table 218 : NanoString Technologies Inc.: Company Snapshot Table 219 : Natera Inc.: Company Snapshot Table 220 : Nebula Genomics Inc.: Company Snapshot Table 221 : NeoGenomics Laboratories: Company Snapshot Table 222 : New England Biolabs: Company Snapshot Table 223 : New Horizon Health: Company Snapshot Table 224 : NOVIGENIX SA: Company Snapshot Table 225 : Novogene Co Ltd: Company Snapshot Table 226 : Nrichdx: Company Snapshot Table 227 : NuProbe: Company Snapshot Table 228 : NX Prenatal Inc.: Company Snapshot Table 229 : Oncimmune Holdings PLC: Company Snapshot Table 230 : OncoCyte Corp.: Company Snapshot Table 231 : OncoDNA: Company Snapshot Table 232 : OPKO Health Inc.: Company Snapshot Table 233 : Orchid: Company Snapshot Table 234 : Oxford Nanopore Technologies plc: Company Snapshot Table 235 : PacBio: Company Snapshot Table 236 : Pangaea Oncology: Company Snapshot Table 237 : Personal Genome Diagnostics Inc: Company Snapshot Table 238 : Personalis Inc.: Company Snapshot Table 239 : Phase Scientific: Company Snapshot Table 240 : PierianDx: Company Snapshot Table 241 : Predicine: Company Snapshot Table 242 : Prenetics Ltd.: Company Snapshot Table 243 : QCDx: Company Snapshot

Next-generation Sequencing: Emerging Clinical Applications and Global Markets



- Table 244 : Quantapore: Company Snapshot
- Table 245 : Quantgene Inc.: Company Snapshot
- Table 246 : QuantuMDx Group Ltd.: Company Snapshot
- Table 247 : Quest Diagnostics: Company Snapshot
- Table 248 : Rarecells Inc.: Company Snapshot
- Table 249 : Ravgen.: Company Snapshot
- Table 250 : Real Time Genomics.: Company Snapshot
- Table 251 : Resolution Bioscience Inc.: Company Snapshot
- Table 252 : SAGA Diagnostics.: Company Snapshot
- Table 253 : Sano Genetics: Company Snapshot
- Table 254 : ScreenCell: Company Snapshot
- Table 255 : SeekIn Inc.: Company Snapshot
- Table 256 : Sequencing.Com: Company Snapshot
- Table 257 : Seven Bridges Genomics: Company Snapshot
- Table 258 : Single Technologies AB: Company Snapshot
- Table 259 : SmartCatch: Company Snapshot
- Table 260 : StageZero Life Sciences. Ltd.: Company Snapshot
- Table 261 : Strand: Company Snapshot
- Table 262 : Strata Oncology Inc.: Company Snapshot
- Table 263 : Syapse Inc.: Company Snapshot
- Table 264 : Sysmex Inostics Inc.: Company Snapshot
- Table 265 : Takara Bio Inc: Company Snapshot
- Table 266 : Telexos GmbH: Company Snapshot
- Table 267 : TwinStrand Biosciences Inc.: Company Snapshot
- Table 268 : Twist Bioscience: Company Snapshot
- Table 269 : Unchained Labs: Company Snapshot
- Table 270 : Universal DX: Company Snapshot
- Table 271 : Vela Diagnostics: Company Snapshot
- Table 272 : Veracyte Inc.: Company Snapshot
- Table 273 : VolitionRx Ltd.: Company Snapshot
- Table 274 : Vortex Biosciences: Company Snapshot
- Table 275 : Yourgene Health: Company Snapshot
- Table 276 : Yikon Genomics: Company Snapshot



# **List Of Figures**

#### LIST OF FIGURES

Summary Figure : Global Market for Clinical Applications of Next-Generation Sequencing, by Disease Class, 2020-2028 Figure 1 : Timeline of the Advancement of Sequencing Technology Figure 2 : How A Strong ESG Proposition Benefits Businesses Figure 3 : The Ten Business Sustainability Trends Identified for 2022 Figure 4 : ESG-Adoption Level Across All the Industries, 2021 and 2022 Figure 5 : Key Sustainable Practices Being Implemented in Research Laboratories Figure 6 : Agilent Technologies Inc.: Financial Performance, 2021 and 2022 Figure 7 : Agilent Technologies Inc.: Revenue Share, by Business Unit, 2022 Figure 8 : Agilent Technologies Inc.: Revenue Share, by Region, 2022 Figure 9 : Illumina Inc: Financial Performance, 2021 and 2022 Figure 10 : Illumina Inc.: Revenue Share, by Business Unit, 2022 Figure 11 : Illumina Inc.: Revenue Share, by Country/Region, 2022 Figure 12 : Qiagen NV: Financial Performance, 2021 and 2022 Figure 13 : Qiagen NV: Revenue Share, by Business Unit, 2022 Figure 14 : Qiagen NV: Revenue Share, by Region, 2022 Figure 15 : Thermo Fisher Scientific Inc.: Financial Performance, 2021 and 2022 Figure 16 : Thermo Fisher Scientific Inc.: Revenue Share, by Business Unit, 2022

Figure 17 : Thermo Fisher Scientific Inc.: Revenue Share, by Region, 2022



# I would like to order

Product name: Next-generation Sequencing: Emerging Clinical Applications and Global Markets Product link: <u>https://marketpublishers.com/r/NFC98AA6B7BEN.html</u>

Price: US\$ 5,500.00 (Single User License / Electronic Delivery) If you want to order Corporate License or Hard Copy, please, contact our Customer Service: <u>info@marketpublishers.com</u>

# Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <u>https://marketpublishers.com/r/NFC98AA6B7BEN.html</u>

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name: Last name: Email: Company: Address: City: Zip code: Country: Tel: Fax: Your message:

\*\*All fields are required

Custumer signature \_\_\_\_\_

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <u>https://marketpublishers.com/docs/terms.html</u>

To place an order via fax simply print this form, fill in the information below and fax the completed form to +44 20 7900 3970