

# Glycobiology: Global Markets for Diagnostics and Therapeutics

<https://marketpublishers.com/r/GBF53ACD958EN.html>

Date: March 2023

Pages: 123

Price: US\$ 5,500.00 (Single User License)

ID: GBF53ACD958EN

## Abstracts

### Report Scope:

The current report will provide an in-depth look at the glycobiology market. This report analyzes glycobiology market trends with data from 2021, estimates for 2022, projections of compound annual growth rates through 2027 (forecast period of 2022 to 2027), and regional market data. This report will highlight the current and future market potential of glycobiology along with providing a detailed analysis of the competitive environment. Regulatory scenarios, drivers, restraints, and opportunities will be covered in the current report. The report also covers market projections for 2027 and indicates the market share for key market players.

The scope of the market in this report is segmented into glycobiology segment and region. The segments of glycobiology are: glycobiology therapeutics, glycobiology diagnostics, and glycobiology reagents and tools. The regional markets are North America, Europe, Asia-Pacific, and other world regions (Rest of the World). Detailed analysis of major countries such as the U.S., Germany, the U.K., Italy, France, Japan, China, and India will be covered within their respective regional segments. For market estimates, data will be provided for 2021 as the base year, with forecasts for 2022 and 2027.

### Report Includes:

51 tables

An up-to-date overview and analysis of the global markets for glycobiology diagnostics and therapeutics

Analyses of the global market trends, with historic revenue data from 2019 to 2021, estimates for 2022, and projections of compound annual growth rates (CAGRs) through 2027

Highlights of the market potential for glycobiology market, industry growth drivers, and areas of focus to forecast this market into various segments and subsegments

Estimation of the actual market size and revenue forecast for global glycobiology market in USD million terms, and corresponding market share analysis by major market segments and region

A look at new tools for synthesizing, modifying and studying oligosaccharides and glycoconjugates

Evaluation of promising candidates for carbohydrate-based diagnostics, drugs and vaccines

Insight into how glycobiology offers enormous untapped potential in the discovery of new therapeutics derived from saccharides or other molecules which target the biosynthesis and function of saccharides

Identification of leading biotechnology companies poised to introduce products during the forecast period, and their impact on the face of the competitive environment

Insight into recent industry structure for glycobiology diagnostics and therapeutics, current competitive scenario, clinical trials, ongoing research (R&D) activities, strategic alliances, and COVID-19 impact on the progress of this market

Profile descriptions of the major market players, including Agilent Technologies Inc., Bio-Techne, Merck KGaA, Takara Bio Inc. and Waters Corp.

## Contents

### **CHAPTER 1 INTRODUCTION**

- 1.1 Overview
- 1.2 Study Goals and Objectives
- 1.3 Reasons for Doing This Study
- 1.4 What's New in This Update?
- 1.5 Scope of Report
- 1.6 Information Sources
- 1.7 Methodology
- 1.8 Geographic Breakdown
- 1.9 Analyst's Credentials
- 1.10 BCC Custom Research
- 1.11 Related BCC Research Reports

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

### **CHAPTER 3 MARKET DYNAMICS**

- 3.1 Market Drivers
  - 3.1.1 Technological Advancements in the Analysis of Glycans
  - 3.1.2 Rising Prevalence of Chronic Disorders Globally
  - 3.1.3 Increasing R&D Investment by Pharma Companies
- 3.2 Market Restraints
  - 3.2.1 Challenges in Glycobiology
- 3.3 Market Opportunities
  - 3.3.1 Inorganic Strategies among Market Players

### **CHAPTER 4 MARKET OVERVIEW**

- 4.1 Overview
  - 4.1.1 Glycobiology
  - 4.1.2 Significance of Glycan
  - 4.1.3 Function of Glycans and Their Biological Significance
  - 4.1.4 Structural Role of Glycans
  - 4.1.5 Research Tools for Glycobiology Studies
  - 4.1.6 Structural Analysis of Glycans
  - 4.1.7 Glycomics as Part of Glycobiology Research

- 4.1.8 Chemical and Enzymatic Synthesis of Glycans and Glycoconjugates
- 4.1.9 Bioinformatics and Database Resources for Glycobiology Research
- 4.2 Current Market Trends
  - 4.2.1 Protein and Glycan Glycoengineering
  - 4.2.2 Engineering Glycans and Glycan Mimics as Therapeutic Agents
  - 4.2.3 Glycobiology and Drug Delivery
  - 4.2.4 Oligosaccharide Libraries for Drug Discovery Research
  - 4.2.5 Glyconutrients as Therapeutics
- 4.3 Recent Strategic Alliances
- 4.4 Emerging Technologies
  - 4.4.1 Glycans in Medicine and Biotechnology
  - 4.4.2 Glycans in Nanotechnology, Bioenergy, and Materials Science

## **CHAPTER 5 IMPACT OF COVID-19 ON MARKET**

- 5.1 Overview
- 5.2 COVID-19 Crisis
  - 5.2.1 Impact on Market for Glycobiology
  - 5.2.2 COVID-19 Measures

## **CHAPTER 6 GLYCOBIOLOGY THERAPEUTICS MARKET**

- 6.1 Overview
  - 6.1.1 Subcategories of Glycobiology Therapeutics
  - 6.1.2 Therapeutic Glycoproteins
  - 6.1.3 Glycan Therapeutic Approaches to Metabolic Diseases
  - 6.1.4 Therapeutic Applications of Glycosaminoglycans
  - 6.1.5 Carbohydrate-based Vaccines and Glycans as Vaccine Components
  - 6.1.6 Blocking Glycan Recognition in Diseases
  - 6.1.7 Transfusion and Transplantation Rejection by Anti-glycan Antibodies

## **CHAPTER 7 GLYCOBIOLOGY DIAGNOSTICS MARKET**

- 7.1 Overview
  - 7.1.1 Glycobiomarkers and Autoimmunity
  - 7.1.2 Glycobiomarkers in Inflammatory Bowel Disease
  - 7.1.3 Autoantibodies Against Neuronal Glycans in Certain Neuropathies
  - 7.1.4 Glycobiology Markers in Cardiovascular Diseases
  - 7.1.5 Role of Glycans in the Histopathology of Alzheimer's Disease

- 7.1.6 Glycobiomarkers and Asthma
- 7.1.7 Glycobiomarkers in Infectious Disease Testing
- 7.1.8 Market Potential for Glycobiology-based Biomarkers and Diagnostic Tests
- 7.1.9 Glycobiology-based Cancer Biomarkers and Diagnostic Development
- 7.1.10 Carbohydrates as Potential Serum Biomarkers
- 7.1.11 Current Glycobiology-based Diagnostics on the Market
- 7.1.12 Companies with Glycobiology Diagnostic Platforms and Products in Development
- 7.1.13 Market for Glycobiology-based Diagnostics

## **CHAPTER 8 GLYCOBIOLOGY REAGENTS AND TOOLS MARKET**

### 8.1 Overview

- 8.1.1 Analytical and Chromatography Techniques
- 8.1.2 Glycan Arrays
- 8.1.3 Lectin Arrays
- 8.1.4 Glycobiology Kits
- 8.1.5 Reagents for Glycobiology Research
- 8.1.6 Carbohydrates: Monosaccharides, Oligosaccharides and Other Reagents

## **CHAPTER 9 MARKET BREAKDOWN BY REGION**

### 9.1 Overview

- 9.1.1 North America
- 9.1.2 Europe
- 9.1.3 Asia-Pacific
- 9.1.4 Rest of the World

## **CHAPTER 10 ANALYSIS OF MARKET OPPORTUNITIES**

### 10.1 Porter's Five Forces Analysis

- 10.1.1 Threat of New Entrants
- 10.1.2 Threat of Substitutes
- 10.1.3 Bargaining Power of Suppliers
- 10.1.4 Bargaining Power of Buyers
- 10.1.5 Degree of Competition

## **CHAPTER 11 COMPETITIVE LANDSCAPE**

## **CHAPTER 12 COMPANY PROFILES**

### 12.1 Major Companies

AGILENT TECHNOLOGIES

AMSBIO LLC

BIO-TECHNE

ISOSEP

LUDGER LTD.

MERCK KGAA

NEW ENGLAND BIOLABS

TAKARA BIO INC.

THERMO FISHER SCIENTIFIC INC.

WATERS CORP.

## **CHAPTER 13 APPENDIX: ACRONYMS**

## List Of Tables

### LIST OF TABLES

Summary Table: Global Market for Glycobiology, by Segment, Through 2027

Table 1: Global Diabetes Prevalence, Estimates and Projections, 2019-2045

Table 2: Cases of Diabetes Worldwide, by Type, 2019

Table 3: Global Prevalence of Diabetes, by Type, Through 2040

Table 4: Global HIV Epidemic, by Age Group, 2020

Table 5: Market Players: R&D Investment, 2019-2021

Table 6: Classification of Carbohydrates

Table 7: Examples of Glycosylation Deficiency and Their Pathological Effect

Table 8: Experimental Approaches to Studying Glycans

Table 9: Examples of Inhibitors/Modulators Used in Glycobiology Research

Table 10: Separation and Identification Techniques Used for Glycan Analysis

Table 11: Bioinformatics and Database Resources for Glycobiology Research

Table 12: Strategic Alliances in the Market for Glycobiology, 2020-2022

Table 13: Approved Glycobiology-related Treatments and Carbohydrate-based Drugs

Table 14: Global Market for Glycobiology Therapeutics, by Region, Through 2027

Table 15: Glycobiology-based Markers

Table 16: Global Death Share, by Various Cancer Types, 2015

Table 17: FDA-approved Cancer Biomarkers Currently Used in Clinical Practice

Table 18: Examples of Potential Glycoprotein Cancer Biomarkers

Table 19: Companies with Diagnostic Products in Development Based on Glycobiology Research

Table 20: Global Market for Glycobiology Diagnostics, by Region, Through 2027

Table 21: Companies Offering Glycobiology Reagents

Table 22: Global Market for Glycobiology Reagents and Tools, by Region, Through 2027

Table 23: Global Market for Glycobiology, by Region, Through 2027

Table 24: Diabetes Estimates in North America, by Country, 2000-2045

Table 25: Influenza Disease Burden, by Age Group, U.S., 2019 and 2020 Influenza Season

Table 26: North American Market for Glycobiology, by Country, Through 2027

Table 27: Diabetes Estimates in Europe, by Country, 2000-2045

Table 28: European Market for Glycobiology, by Country, Through 2027

Table 29: Tuberculosis Burden of Asian Countries, by Country, 2019

Table 30: Diabetes Estimates for the Asia-Pacific Region, by Country, 2000-2045

Table 31: Asia-Pacific Market for Glycobiology, by Country, Through 2027

Table 32: Diabetes Estimates in RoW, by Country, 2000-2045

Table 33: New Cancer Cases in Africa, by Cancer Type, 2020 and 2024

Table 34: Porter's Five Forces Analysis: Glycobiology Market

Table 35: Agilent Technologies: Product Portfolio

Table 36: Agilent Technologies: Key Developments, 2016-2020

Table 37: AMSBIO LLC: Product Portfolio

Table 38: AMSBIO LLC: Key Developments, 2022

Table 39: Bio-Techne: Product Portfolio

Table 40: IsoSep: Product Portfolio

Table 41: Ludger Ltd.: Product Portfolio

Table 42: Ludger Ltd.: Key Developments, 2022

Table 43: Merck KGaA: Product Portfolio

Table 44: Merck KgaA: Key Developments, 2020 and 2021

Table 45: New England Biolabs: Insulin Product Portfolio

Table 46: Takara Bio Inc.: Product Portfolio

Table 47: Thermo Fisher Scientific Inc.: Product Portfolio

Table 48: Thermo Fisher Scientific Inc.: Key Developments, 2020

Table 49: Waters Corp.: Product Portfolio

Table 50: Acronyms Used in This Report



## List Of Figures

### LIST OF FIGURES

- Summary Figure: Global Market Shares of Glycobiology, by Segment, 2021
- Figure 1: Emerging Glycomics Technologies
- Figure 2: Cases of Diabetes Worldwide, by Type, 2019
- Figure 3: Global Prevalence of Diabetes, by Type, 2018-2040
- Figure 4: Numbers and Shares of New Cancer Cases, Women, 2020
- Figure 5: Numbers and Shares of New Cancer Cases, Men, 2020
- Figure 6: Schematic Presentation of O- and N-linked Glycans on Protein Receptor
- Figure 7: Global Market for Glycobiology Therapeutics, 2019-2027
- Figure 8: Global Market for Glycobiology Diagnostics, 2019-2027
- Figure 9: Global Market for Glycobiology Reagents and Tools, 2019-2027
- Figure 10: Global Market Shares of Glycobiology, by Region, 2021
- Figure 11: North American Market Shares of Glycobiology, by Country, 2021
- Figure 12: Cancer Diagnosis Share in Europe, by Gender, 2020
- Figure 13: European Market Shares of Glycobiology, by Country, 2021
- Figure 14: Asia-Pacific Market Shares of Glycobiology, by Country, 2021
- Figure 15: Global Market Shares of Glycobiology, by Company, 2021
- Figure 16: Agilent Technologies: Annual Revenue, 2019-2021
- Figure 17: Agilent Technologies: Revenue Share, by Segment, 2021
- Figure 18: Agilent Technologies: Revenue Share, by Region, 2021
- Figure 19: Bio-Techne: Annual Revenue, 2019-2021
- Figure 20: Bio-Techne: Revenue Share, by Business Segment, 2021
- Figure 21: Bio-Techne: Revenue Share, by Region, 2021
- Figure 22: Merck KGaA: Annual Revenue, 2019-2021
- Figure 23: Merck KGaA: Revenue Share, by Business Segment, 2021
- Figure 24: Merck KGaA: Revenue Share, by Region, 2021
- Figure 25: Takara Bio Inc.: Annual Revenue, 2019-2021
- Figure 26: Takara Bio Inc.: Revenue Share, by Segment, 2021
- Figure 27: Takara Bio Inc.: Revenue Share, by Region, 2021
- Figure 28: Thermo Fisher Scientific Inc.: Annual Revenue, 2019-2021
- Figure 29: Thermo Fisher Scientific Inc.: Revenue Share, by Segment, 2021
- Figure 30: Thermo Fisher Scientific Inc.: Revenue Share, by Region, 2021
- Figure 31: Waters Corp.: Annual Revenue, 2019-2021
- Figure 32: Waters Corp.: Revenue Share, by Segment, 2021
- Figure 33: Waters Corp.: Revenue Share, by Region, 2021

## I would like to order

Product name: Glycobiology: Global Markets for Diagnostics and Therapeutics

Product link: <https://marketpublishers.com/r/GBF53ACD958EN.html>

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:

[info@marketpublishers.com](mailto:info@marketpublishers.com)

## Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/GBF53ACD958EN.html>

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**

Customer signature \_\_\_\_\_

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

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