

Biologics Contract Manufacturing Market by Type of Service Offered (API Manufacturing, FDF Manufacturing), Type of Biologic Manufactured (Antibodies, Cell Therapies, Vaccines and Other Biologics), Type of Expression System Used (Mammalian, Microbial and Others), Scale of Operation (Preclinical / Clinical and Commercial), Company Size (Small, Mid-sized, and Large and Very Large), and Key Geographical Regions (North America, Europe, Asia-Pacific, Middle East and North Africa, and Latin America): Industry Trends and Global Forecasts, 2023-2035

https://marketpublishers.com/r/BD3EA71EE833EN.html

Date: November 2023

Pages: 799

Price: US\$ 4,799.00 (Single User License)

ID: BD3EA71EE833EN

Abstracts

The global biologics contract manufacturing market is estimated to reach USD 19 billion in 2023 and is anticipated to grow at a CAGR of 9% during the forecast period 2023-2035.

The biologics contract manufacturing sector, synonymous with the biopharmaceutical CMO industry, exemplifies robust dynamism and rapid expansion, drawing considerable interest from various entities dedicated to research and development in pioneering new therapeutic modalities. These groundbreaking innovations encompass a spectrum of advancements, including antibody drug conjugates, biosimilars, and cell and gene therapies. Over time, this burgeoning market has seen a proliferation of more than 250 biologic therapies and vaccines worldwide. Notably, biologics demonstrate heightened



success rates compared to traditional small-molecule drugs owing to their reduced off-target toxicity, a prevalent setback in small molecule drug development.

The escalating enthusiasm for biologics has triggered a discernible shift in investment trends within the pharmaceutical landscape, transitioning away from small molecule drugs and favoring biologics. This transition, combined with continuous scientific progress and the increasing number of FDA-approved biologics, signifies the advent of the biologics era. Biopharmaceuticals are expected to fundamentally redefine the pharmaceutical industry, gradually evolving into an indispensable component of mainstream medical treatments.

These service providers offer comprehensive solutions encompassing bioprocess development and optimization, aiming to expedite operational timelines and mitigate the substantial costs associated with manufacturing intricate biologic drugs. Some manufacturers choose to outsource specific operations to capitalize on state-of-the-art facilities and expertise, particularly when contract manufacturing firms employ cutting-edge technologies such as software-driven robotics to elevate manufacturing processes and minimize risks associated with manual methods. As outsourcing gains traction as a viable and advantageous business model within this sphere, the global market for biologics contract manufacturing is poised to witness remarkable growth in the forecast period.

Report Coverage

The report delves into the biologics contract manufacturing market based on type of services offered, type of biologic manufactured, type of expression system used, scale of operation, company size and key geographical regions

It analyzes factors such as drivers, restraints, opportunities, and challenges influencing market growth.

Assessment of potential advantages and obstacles within the market, providing insights into the competitive landscape among top players.

Revenue forecasts for market segments across five major regions.

An executive summary detailing key research insights into the current state and anticipated evolution of the biologics contract manufacturing market in the short and long term.



Introduction to biopharmaceuticals, manufacturing processes, expression systems, and the significance of outsourcing in this industry.

Examination of the current market landscape of contract manufacturing companies, evaluating their services, biologic types, operational scale, expression systems, and geographical locations.

Detailed profiles of key contract manufacturing organizations in each region, spotlighting their services, facilities, recent developments, and future prospects.

Case studies on the biosimilars market, exploring opportunities for Contract Manufacturing Organizations (CMOs) and comparing small and large molecule drug characteristics and manufacturing processes.

Assessment of big pharma manufacturing initiatives and collaborations, reviewing top companies' initiatives, collaborations, trends, and activities impacting biologics contract manufacturing.

Analysis of recent partnerships, mergers, acquisitions, and their influence on the biologics contract manufacturing industry.

Review of expansion initiatives, funding investments, and technological advancements in biomanufacturing.

Estimation of manufacturing capacity and annual demand for top biologics based on patient population, dosing, and strength.

Evaluation of the total cost of ownership for CMOs based on company size from 2023-2043.

Examination of industry trends, drivers, challenges through a SWOT analysis and their impact on the biopharmaceutical industry.

Exploration of the role of the virtual business model in biopharmaceuticals, including its advantages, risks, and impact on outsourcing operations.

Discussion of anticipated market growth, opportunities, and trends likely to shape the biologics contract manufacturing industry in the forecast period.



Key Market Companies AGC Biologics Boehringer Ingelheim Catalent **Cell Therapies Charles River Laboratories** FUJIFILM Diosynth Biotechnologies KBI Biopharma Kemwell Biopharma Lonza Miltenyi Biotec Minaris Regenerative Medicine Samsung Biologics Sandoz Vetter Pharma

Wuxi Biologics



Contents

1 PREFACE

- 1.1. Biopharmaceutical Contract Manufacturing Market Overview
- 1.2. Key Market Insights
- 1.3. Scope of the Report
- 1.4. Research Methodology
- 1.5. Key Questions Answered
- 1.6. Chapter Outlines

2 RESEARCH METHODOLOGY

- 2.1. Chapter Overview
- 2.2. Research Assumptions
- 2.3. Project Methodology
- 2.4. Forecast Methodology
- 2.5. Robust Quality Control
- 2.6. Key Market Segmentations
- 2.7. Key Considerations
 - 2.7.1. Demographics
 - 2.7.2. Economic Factors
 - 2.7.3. Government Regulations
 - 2.7.4. Supply Chain
 - 2.7.5. COVID Impact / Related Factors
 - 2.7.6. Market Access
 - 2.7.7. Healthcare Policies
 - 2.7.8. Industry Consolidation

3. ECONOMIC AND OTHER PROJECT SPECIFIC CONSIDERATIONS

- 3.1. Chapter Overview
- 3.2. Market Dynamics
 - 3.2.1. Time Period
 - 3.2.1.1. Historical Trends
 - 3.2.1.2. Current and Forecasted Estimates
 - 3.2.2. Currency Coverage
 - 3.2.2.1. Overview of Major Currencies Affecting the Market
 - 3.2.2.2. Impact of Currency Fluctuations on the Industry



- 3.2.3. Foreign Exchange Impact
 - 3.2.3.1. Evaluation of Foreign Exchange Rates and Their Impact on Market
 - 3.2.3.2. Strategies for Mitigating Foreign Exchange Risk
- 3.2.4. Recession
 - 3.2.4.1. Historical Analysis of Past Recessions and Lessons Learnt
- 3.2.4.2. Assessment of Current Economic Conditions and Potential Impact on the Market
- 3.2.5. Inflation
 - 3.2.5.1. Measurement and Analysis of Inflationary Pressures in the Economy
 - 3.2.5.2. Potential Impact of Inflation on the Market Evolution

4 EXECUTIVE SUMMARY

5 INTRODUCTION

- 5.1. Chapter Overview
- 5.2. Overview of Biopharmaceuticals
- 5.3. Expression Systems for Biopharmaceuticals
 - 5.3.1. Insect Expression Systems
 - 5.3.2. Mammalian Expression Systems
 - 5.3.3. Microbial Expression Systems
 - 5.3.3.1. Bacterial Expression Systems
 - 5.3.3.2. Fungal Expression Systems
 - 5.3.3.3. Yeast Expression Systems
 - 5.3.4. Plant Expression Systems
 - 5.3.5. Mammalian versus Microbial Expression Systems
- 5.4. Manufacturing Process of Biopharmaceuticals
 - 5.4.1. Upstream Processing
 - 5.4.2. Fermentation
- 5.4.3. Downstream Processing
- 5.5. Overview of Contract Manufacturing
- 5.6. Need for Outsourcing Biopharmaceutical Manufacturing Operations
- 5.6.1. Commonly Outsourced Manufacturing Operations for Biopharmaceuticals
- 5.6.2. Advantages of Outsourcing Biopharmaceutical Manufacturing Operations
- 5.6.3. Risks and Challenges Associated with Outsourcing Biopharmaceutical Manufacturing Operations
- 5.7. Key Considerations While Selecting a Contract Manufacturing Partner
- 5.8. Future Perspectives



6 MARKET LANDSCAPE

- 6.1. Chapter Overview
- 6.2. Biopharmaceutical Contract Manufacturers: Overall Market Landscape
 - 6.2.1. Analysis by Year of Establishment
 - 6.2.2. Analysis by Company Size
 - 6.2.3. Analysis by Location of Headquarters
 - 6.2.4. Analysis by Type of Service Offered
 - 6.2.5. Analysis by Type of Biologic Manufactured
 - 6.2.6. Analysis by Scale of Operation
 - 6.2.7. Analysis by Type of Expression System Used
 - 6.2.8. Analysis by Type of Bioreactor Used
 - 6.2.9. Analysis by Mode of Operation of Bioreactor

7 REGIONAL CAPABILITY ANALYSIS

- 7.1. Chapter Overview
- 7.2. Key Assumptions and Parameter
- 7.3. Overview of Biopharmaceutical Contract Manufacturing Facilities
 - 7.3.1. Analysis by Type of Service Offered
- 7.3.2. Analysis by Scale of Operation
- 7.4. Regional Capability Analysis: Biopharmaceutical Contract Manufacturing Facilities in North America
- 7.5. Regional Capability Analysis: Biopharmaceutical Contract Manufacturing Facilities in Europe
- 7.6. Regional Capability Analysis: Biopharmaceutical Contract Manufacturing Facilities in Asia-Pacific
- 7.7. Regional Capability Analysis: Biopharmaceutical Contract Manufacturing Facilities in Rest of the World

8 BIOPHARMACEUTICAL CONTRACT MANUFACTURING IN NORTH AMERICA

- 8.1. Chapter Overview
- 8.2. Biopharmaceutical Contract Manufacturing in the US: Regulatory Scenario
- 8.3. Leading Biopharmaceutical CMOs in North America
 - 8.3.1. AGC Biologics
 - 8.3.1.1. Company Overview
 - 8.3.1.2. Service Portfolio
 - 8.3.1.2.1. Process Development



- 8.3.1.2.2. cGMP Manufacturing
- 8.3.1.2.3. Quality and Regulatory Services
- 8.3.1.2.4. Process Validation
- 8.3.1.3. Financial Information
- 8.3.1.4. Manufacturing Facilities
- 8.3.1.5. Recent Developments and Future Outlook
- 8.3.2. Catalent
 - 8.3.2.1. Company Overview
 - 8.3.2.2. Service Portfolio
 - 8.3.2.2.1. Cell Line Development
 - 8.3.2.2.2. Biomanufacturing
 - 8.3.2.2.3. ADCs and Bioconjugates Manufacturing
 - 8.3.2.2.4. Biosimilars Development and Manufacturing
 - 8.3.2.2.5. Fill / Finish Solutions and Delivery Services
 - 8.3.2.2.6. Analytical Services
 - 8.3.2.3. Clinical Supply Services
 - 8.3.2.4. Financial Information
 - 8.3.2.5. Manufacturing Facilities
 - 8.3.2.6. Recent Developments and Future Outlook
- 8.3.3. FUJIFILM Diosynth Biotechnologies
 - 8.3.3.1. Company Overview
 - 8.3.3.2. Service Portfolio
 - 8.3.3.2.1. Strain Development
 - 8.3.3.2.2. Process Development
 - 8.3.3.2.3. cGMP Manufacturing
 - 8.3.3.2.4. Analytical Solutions
 - 8.3.3.3. Financial Information
 - 8.3.3.4. Manufacturing Facilities
 - 8.3.3.5. Recent Developments and Future Outlook
- 8.3.4. KBI Biopharma
 - 8.3.4.1. Company Overview
 - 8.3.4.2. Service Portfolio
 - 8.3.4.2.1. Process Development
 - 8.3.4.2.2. Analytical Development
 - 8.3.4.2.3. GMP Manufacturing
 - 8.3.4.2.4. Clinical Cell Therapy Support
 - 8.3.4.3. Manufacturing Facilities
 - 8.3.4.4. Recent Developments and Future Outlook
- 8.3.5. Charles River Laboratories



- 8.3.5.1 Company Overview
- 8.3.5.2. Service Portfolio
 - 8.3.5.2.1. Cell Sourcing
 - 8.3.5.2.2. Cell and Gene Therapy Solutions
 - 8.3.5.2.3. Biologics Testing Solutions
 - 8.3.5.2.4. Avian Vaccine Services
- 8.3.5.2.5. QC Microbial Solutions
- 8.3.5.2.6. Scientific and Regulatory Advisory Services
- 8.3.5.3. Financial Information
- 8.3.5.4. Manufacturing Facilities
- 8.3.5.5. Recent Developments and Future Outlook
- 8.4. Other Leading Biopharmaceutical CMOs in North America
 - 8.4.1. Cytiva
 - 8.4.1.1. Company Overview
 - 8.4.2. Patheon
 - 8.4.2.1. Company Overview
 - 8.4.3 Piramal Pharma Solutions
 - 8.4.3.1. Company Overview

9 BIOPHARMACEUTICAL CONTRACT MANUFACTURING IN EUROPE

- 9.1. Chapter Overview
- 9.2. Biopharmaceutical Contract Manufacturing in Europe: Regulatory Scenario
 - 9.2.1. EMA's cGMP Regulations
- 9.3. Leading Biopharmaceutical CMOs in Europe
 - 9.3.1. Boehringer Ingelheim (BioXcellence)
 - 9.3.1.1. Company Overview
 - 9.3.1.2. Service Portfolio
 - 9.3.1.2.1. Process Development
 - 9.3.1.2.1.1. Expression Systems
 - 9.3.1.2.1.2. Upstream Technology
 - 9.3.1.2.1.3. Downstream Technology
 - 9.3.1.2.1.4. Other Process Development Services
 - 9.3.1.2.2. Quality Assurance
 - 9.3.1.2.3. Fill / Finish Services
 - 9.3.1.3. Financial Information
 - 9.3.1.4. Manufacturing Facilities
 - 9.3.1.5. Recent Developments and Future Outlook
 - 9.3.2. Lonza



- 9.3.2.1. Company Overview
- 9.3.2.2. Service Portfolio
- 9.3.2.3. Manufacturing Services
- 9.3.2.4. Financial Information
- 9.3.2.5. Manufacturing Facilities
- 9.3.2.6. Recent Developments and Future Outlook
- 9.3.3. Sandoz
 - 9.3.3.1. Company Overview
 - 9.3.3.2. Service Portfolio
 - 9.3.3.3. Financial Information
 - 9.3.3.4. Manufacturing Facilities
 - 9.3.3.5. Recent Developments and Future Outlook
- 9.3.4. Vetter Pharma
 - 9.3.4.1. Company Overview
 - 9.3.4.2. Service Portfolio
 - 9.3.4.3. Manufacturing Facilities
 - 9.3.4.4. Recent Developments and Future Outlook
- 9.3.5. Miltenyi Biotec
 - 9.3.5.1. Company Overview
 - 9.3.5.2. Service Portfolio
 - 9.3.5.3. Manufacturing Facilities
 - 9.3.5.4. Recent Developments and Future Outlook
- 9.4. Other Leading Biopharmaceutical CMOs in Europe
 - 9.4.1 Novasep
 - 9.4.1.1. Company Overview
 - 9.4.2 Olon
 - 9.4.2.1. Company Overview
 - 9.4.3 Rentschler Biopharma
 - 9.4.3.1. Company Overview

10 BIOPHARMACEUTICAL CONTRACT MANUFACTURING IN ASIA-PACIFIC AND REST OF THE WORLD

- 10.1. Chapter Overview
- 10.2. Biopharmaceutical Contract Manufacturing in China
 - 10.2.1. Biopharmaceutical Contract Manufacturing in China: Regulatory Scenario
- 10.3. Leading Biopharmaceutical CMOs in China
 - 10.3.1. WuXi Biologics
 - 10.3.1.1. Company Overview



- 10.3.1.2. Service Portfolio
 - 10.3.1.2.1. Discovery Services
 - 10.3.1.2.2. Development Services
 - 10.3.1.2.3. Testing Services
- 10.3.1.2.4. Clinical Manufacturing Services
- 10.3.1.3. Financial Information
- 10.3.1.4. Manufacturing Facilities
- 10.3.1.5. Recent Developments and Future Outlook
- 10.4. Biopharmaceutical Contract Manufacturing in India
 - 10.4.1. Biopharmaceutical Contract Manufacturing in India: Regulatory Scenario
- 10.5. Leading Biopharmaceutical CMOs in India
 - 10.5.1. Kemwell Biopharma
 - 10.5.1.1. Company Overview
 - 10.5.1.2. Service Portfolio
 - 10.5.1.2.1. Development Services for Biopharmaceuticals
 - 10.5.1.2.2. Manufacturing Services for Biopharmaceuticals
 - 10.5.1.3. Manufacturing Facilities
 - 10.5.1.4. Recent Developments and Future Outlook
- 10.6. Biopharmaceutical Contract Manufacturing in Japan
 - 10.6.1. Biopharmaceutical Contract Manufacturing in Japan: Regulatory Scenario
- 10.7. Leading Biopharmaceutical CMOs in Japan
 - 10.7.1. Minaris Regenerative Medicine
 - 10.7.1.1. Company Overview
 - 10.7.1.2. Service Portfolio
 - 10.7.1.2.1. Manufacturing Development Services
 - 10.7.1.2.2. GMP Manufacturing
 - 10.7.1.3. Manufacturing Facilities
 - 10.7.1.4. Recent Developments and Future Outlook
- 10.8. Biopharmaceutical Contract Manufacturing in South Korea
- 10.8.1. Biopharmaceutical Contract Manufacturing in South Korea: Regulatory Scenario
- 10.9. Leading Biopharmaceutical CMOs in South Korea
 - 10.9.2. Samsung Biologics
 - 10.9.2.1. Company Overview
 - 10.9.2.2. Service Portfolio
 - 10.9.2.2.1. Process Development
 - 10.9.2.2.2. Analytical Services
 - 10.9.2.2.3. cGMP Manufacturing Services
 - 10.9.2.2.4. Aseptic Fill / Finish Services



- 10.9.2.2.5. Quality Services
- 10.9.2.3. Financial Information
- 10.9.2.4. Manufacturing Facilities
- 10.9.2.5. Recent Developments and Future Outlook
- 10.10. Biopharmaceutical Contract Manufacturing in Australia
 - 10.10.1. Biopharmaceutical Contract Manufacturing in Australia: Regulatory Scenario
- 10.11. Leading Biopharmaceutical CMOs in Australia
 - 10.11.1. Cell Therapies
 - 10.11.1.1. Company Overview
 - 10.11.1.2. Service Portfolio
 - 10.11.1.3. Manufacturing Facilities
 - 10.11.1.4. Recent Developments and Future Outlook
- 10.12. Other Leading Biopharmaceutical CMOs in Asia-Pacific and Rest of the World
 - 10.12.1 AcuraBio (Formerly Known as Luina Bio)
 - 10.12.1.1. Company Overview
 - 10.12.2 Celltrion
 - 10.12.2.1. Company Overview
 - 10.12.3 Takara Bio
 - 10.12.3.1. Company Overview

11 NICHE BIOPHARMACEUTICAL SECTORS

- 11.1. Chapter Overview
- 11.2. Bispecific Antibodies
- 11.2.1. Approved and Clinical Bispecific Antibody Therapeutics: Overall Market Landscape
 - 11.2.2. Bispecific Antibodies: Pipeline Analysis
 - 11.2.2.1. Analysis by Phase of Development
 - 11.2.2.2. Analysis by Target Indication
 - 11.2.3. Bispecific Antibody Therapeutics: Technology Platforms
 - 11.2.4. Key Considerations for Manufacturing and Associated Challenges
 - 11.2.5. Role of CMOs in Offering Services for Bispecific Antibodies
 - 11.2.5.1. CMOs Offering Services for Bispecific Antibodies
- 11.3. Antibody Drug Conjugates (ADCs)
- 11.3.1. Components of ADCs
 - 11.3.1.1. Antibody
 - 11.3.1.2. Cytotoxin
 - 11.3.1.3. Linker
- 11.3.2. Antibody Drug Conjugates (ADCs): Pipeline Analysis



- 11.3.2.1. Analysis by Status of Development
- 11.3.2.2. Analysis by Target Disease Indication
- 11.3.2.3. Most Active Players: Analysis by Number of Therapies
- 11.3.3. Antibody Drug Conjugate Developers
- 11.3.4. Manufacturing Process
- 11.4. Cell Therapies
 - 11.4.5. Technical Challenges Related to Antibody Drug Conjugates Manufacturing
 - 11.4.6. Role of CMOs in Offering Services for ADCs
 - 11.4.6.1. CMOs Offering Services for ADCs
 - 11.4.1. Cell Therapies: Overall Market Landscape
 - 11.4.2. Overview of Cell Therapy Manufacturing
 - 11.4.2.1. Cell Therapy Manufacturing Models
 - 11.4.2.1.1. Centralized Manufacturing
 - 11.4.2.1.2. Decentralized Manufacturing
 - 11.4.3. Key Challenges for Manufacturing Cell Therapies
 - 11.4.4. Key Factors Impacting Cell Therapy Manufacturing
 - 11.4.4.1. Characterization
 - 11.4.4.2. Cost of Goods
 - 11.4.4.3. Automation of Cell Therapy Manufacturing
 - 11.4.5 Cell Therapies: Pipeline Analysis
 - 11.4.5.1 Analysis by Type of Cell Manufactured
 - 11.4.6. Stem Cell Therapies: Analysis by Phase of Development
 - 11.4.7. T-Cell Therapies: Analysis by Phase of Development
 - 11.4.8. Role of CMOs in Offering Services for Cell Therapies
 - 11.4.8.1. CMOs Offering Services for Cell Therapies
- 11.5. Gene Therapies
 - 11.5.1. Gene Therapies: Pipeline Analysis
 - 11.5.1.1. Analysis by Stage of Development
 - 11.5.1.2. Analysis by Phase of Development
 - 11.5.1.3. Analysis by Type of Vector Used
 - 11.5.1.3.1. Clinical Pipeline
 - 11.5.1.3.2. Preclinical Pipeline
 - 11.5.1.4. Analysis by Therapeutic Area
 - 11.5.1.4.1. Clinical and Commercial Pipeline
 - 11.5.1.4.2. Preclinical Pipeline
 - 11.5.2. Role of CMOs in Offering Services for Gene Therapies
 - 11.5.2.1 CMOs Offering Services for Gene Therapies
- 11.6. Viral Vectors
- 11.6.1. Viral Vectors: Pipeline Analysis



- 11.6.1.1. Analysis by Location of Viral Vectors Manufacturing Facilities
- 11.6.1.2. Analysis by Type of Viral Vector Manufactured
- 11.6.2. Role of CMOs in Offering Services for Viral Vectors
 - 11.6.2.1. CMOs Offering Services for Viral Vectors
- 11.7. Plasmid DNA
 - 11.7.1. Plasmid DNA: Pipeline Analysis
 - 11.7.1.1. Analysis by Location of Manufacturing Facilities
 - 11.7.2. Role of CMOs in Offering Services for Plasmid DNA
 - 11.7.2.1. CMOs Offering Services for Plasmid DNA

12 CASE STUDY: OUTSOURCING OF BIOSIMILARS

- 12.1. Chapter Overview
- 12.2. Overview of Biosimilars
- 12.3. Development Stages of Biosimilars
- 12.4. Regulatory Requirements for Licensing of Biosimilars
- 12.5. Need for Outsourcing Manufacturing Operations
- 12.6. Impact of Biosimilars on the Global Contract Manufacturing Market
 - 12.6.1. Biosimilars: Historical Trend of FDA Approvals
- 12.7. Biosimilars Contract Manufacturing Service Providers
- 12.8. Challenges Associated with Outsourcing of Biosimilar Manufacturing Operations

13 CASE STUDY: COMPARISON OF SMALL AND LARGE MOLECULE DRUGS / THERAPIES

- 13.1. Chapter Overview
- 13.2. Small Molecule and Large Molecule Drugs / Therapies
- 13.2.1. Comparison of General Characteristics
- 13.2.2. Comparison of Key Specifications
- 13.2.3. Comparison of Manufacturing Process
- 13.2.4. Comparison of Key Manufacturing Challenges

14 CASE STUDY: IN-HOUSE MANUFACTURING

- 14.1. Chapter Overview
- 14.2. In-House Manufacturing
 - 14.2.1. Benefits Associated with In-House Manufacturing
 - 14.2.2. Risks Associated with In-House Manufacturing
- 14.3. Outsourcing Trends in the Biopharmaceutical Industry



- 14.3.1. Types of Outsourcing Partners
- 14.4. Manufacturing Approaches Used for Approved Biologics, 2016-2022
- 14.5. Choosing the Right Strategy: In-House Manufacturing versus Outsourcing

15 MAKE VERSUS BUY DECISION MAKING FRAMEWORK

- 15.1. Chapter Overview
- 15.2. Key Assumptions and Parameters
- 15.3. Biopharmaceutical Contract Manufacturers: Make versus Buy Decision Making
 - 15.3.1. Scenario
 - 15.3.2. Scenario
 - 15.3.3. Scenario
- 15.3.4. Scenario
- 15.4. Conclusion

16 BIG PHARMA INITIATIVES

- 16.1. Chapter Overview
- 16.2. Biopharmaceutical Related Initiatives by Big Pharmaceutical Players
 - 16.2.1. Analysis by Number of Initiatives
 - 16.2.2. Analysis by Year of Initiative
 - 16.2.3. Analysis by Purpose of Initiative
 - 16.2.4. Analysis by Type of Initiative
 - 16.2.4.1. Analysis by Type of Partnership
 - 16.2.4.2. Analysis by Type of Expansion
 - 16.2.5. Analysis by Scale of Operation
 - 16.2.6. Analysis by Type of Biologic Manufactured
 - 16.2.7. Analysis of Big Pharma Players by Year of Initiative
 - 16.2.8. Analysis of Big Pharma Players by Purpose of Initiative
 - 16.2.9. Analysis by Year and Type of Initiative
 - 16.2.10. Analysis of Big Pharma Players by Region of Expansion
 - 16.2.11. Analysis of Big Pharma Players by Type of Biologic Manufactured

17 PARTNERSHIPS AND COLLABORATIONS

- 17.1. Chapter Overview
- 17.2. Partnership Models
- 17.3. Biopharmaceutical Contract Manufacturing: Partnerships and Collaborations
 - 17.3.1. Analysis by Year of Partnership



- 17.3.2. Analysis by Type of Partnership
- 17.3.3. Analysis by Year and Type of Partnership
- 17.3.4. Analysis by Type of Biologic Manufactured
- 17.3.5. Analysis by Year of Partnership and Type of Biologic Manufactured
- 17.3.6. Analysis by Type of Partnership and Type of Biologic Manufactured
- 17.3.7. Analysis by Scale of Operation
- 17.3.8. Analysis by Therapeutic Area
- 17.3.9. Most Active Players: Analysis by Number of Partnerships
- 17.3.10. Analysis by Geography
 - 17.3.10.1. Local and International Agreements
 - 17.3.10.2. Intracontinental and Intercontinental Agreements

18 MERGERS AND ACQUISITIONS

- 18.1. Chapter Overview
- 18.2. Merger and Acquisition Models
- 18.3. Biopharmaceutical Contract Manufacturing: Mergers and Acquisitions
 - 18.3.1. Cumulative Year-wise Trend of Mergers and Acquisitions
 - 18.3.2. Analysis by Type of Acquisition
 - 18.3.3. Analysis by Geography
 - 18.3.3.1. Local and International Mergers and Acquisitions
 - 18.3.3.2. Intracontinental and Intercontinental Mergers and Acquisitions
 - 18.3.3.3. Year-wise Trend in North America, Europe and Asia-Pacific
 - 18.3.4 Most Active Acquirers: Analysis by Number of Acquisitions
 - 18.3.5 Analysis by Key Value Drivers
 - 18.3.6. Analysis by Year of Acquisition and Key Value Drivers
- 18.3.7. Analysis by Type of Biologic Manufactured
- 18.3.8. Analysis by Key Value Drivers and Type of Biologic Manufactured
- 18.4. Key Acquisitions: Deal Multiples
- 18.4.1. Year-wise Trend of Deal Multiple Amount

19 RECENT EXPANSIONS

- 19.1. Chapter Overview
- 19.2. Biopharmaceutical Contract Manufacturing: Recent Expansions
- 19.2.1. Analysis by Year of Expansion
- 19.2.2. Analysis by Purpose of Expansion
- 19.2.3. Analysis by Year and Purpose of Expansion
- 19.2.4. Analysis by Type of Biologic Manufactured



- 19.2.5. Analysis by Purpose of Expansion and Type of Biologic Manufactured
- 19.2.6. Analysis by Location of Expanded Facility
- 19.2.7. Most Active Players: Analysis by Number of Recent Expansions
- 19.2.8. Analysis by Purpose of Expansion and Location of Expanded Facility
- 19.2.9. Analysis by Amount Invested
- 19.2.10. Recent Expansions: 2016-2020 and 2021-2023 Scenario

20 RECENT DEVELOPMENTS

- 20.1. Chapter Overview
- 20.2. Types of Funding
- 20.3. Biopharmaceutical Contract Manufacturing: Funding and Investment Analysis
 - 20.3.1. Analysis by Year of Funding
 - 20.3.2. Analysis by Amount Invested
 - 20.3.3. Analysis by Type of Funding
 - 20.3.4. Analysis by Year and Type of Funding
 - 20.3.5. Analysis of Funding Instances and Amount Invested by Geography (Continent)
 - 20.3.6. Analysis of Funding Instances and Amount Invested by Geography (Country)
 - 20.3.7. Most Active Players: Analysis by Number of Funding Instances
 - 20.3.8. Most Active Players: Analysis by Total Amount Raised
 - 20.3.9. Leading Investors: Analysis by Number of Funding Instances
 - 20.3.10. Leading Investors: Analysis by Total Amount Raised
- 20.4. Technological Advancements
 - 20.4.1. Single-Use Technology
 - 20.4.2. Process Analytical Technology (PAT)
 - 20.4.3. Continuous Processing
 - 20.4.4. Quality by Design (QbD) in Bio-processing
 - 20.4.5. Modular / Podular Biopharma Facilities

21 CAPACITY ANALYSIS

- 21.1. Chapter Overview
- 21.2. Key Assumptions and Methodology
- 21.3. Biopharmaceutical Contract Manufacturing: Global Installed Capacity
 - 21.3.1. Analysis by Company Size
 - 21.3.2. Analysis by Type of Expression System Used
 - 21.3.3. Analysis by Geography
- 21.3.3.1. Analysis of Biopharmaceutical Contract Manufacturing Capacity in North America



- 21.3.3.2. Analysis of Biopharmaceutical Contract Manufacturing Capacity in Europe
- 21.3.3.3. Analysis of Biopharmaceutical Contract Manufacturing Capacity in Asia-Pacific
- 21.3.3.4. Analysis of Biopharmaceutical Contract Manufacturing Capacity in Rest of the World
- 21.4. Concluding Remarks

22 DEMAND ANALYSIS

- 22.1. Chapter Overview
- 22.2. Key Assumptions and Methodology
- 22.3. Global Demand for Biopharmaceuticals
- 22.4. Global Demand for Emerging Novel Biologics
- 22.4.1. Global Demand for ADC Therapeutics
- 22.4.2. Global Demand for Cell Therapy Manufacturing

23. TOTAL COST OF OWNERSHIP FOR BIOPHARMACEUTICAL CONTRACT MANUFACTURING ORGANIZATIONS

- 23.1. Chapter Overview
- 23.2. Key Parameters
- 23.3. Assumptions and Methodology
- 23.4. Total Cost of Ownership (Sample Dataset)
- 23.5. Total Cost of Ownership for Mid-sized Biopharmaceutical Contract Manufacturing Organizations, Y0-Y20
- 23.5.1. Total Cost of Ownership for Mid-sized Biopharmaceutical Contract Manufacturing Organizations: Analysis by CAPEX, Y0
- 23.5.2. Total Cost of Ownership for Mid-sized Biopharmaceutical Contract Manufacturing Organizations: Analysis by OPEX, Y1-Y20
- 23.7. Total Cost of Ownership for Large / Very Large Biopharmaceutical Contract Manufacturing Organizations, Y0-Y20
- 23.7.1. Total Cost of Ownership for Large / Very Large Biopharmaceutical Contract Manufacturing Organizations: Analysis by CAPEX, Y0
- 23.7.2. Total Cost of Ownership for Large / Very Large Biopharmaceutical Contract Manufacturing Organizations: Analysis by OPEX, Y1-Y20

24 GLOBAL BIOPHARMACEUTICAL CONTRACT MANUFACTURING MARKET

24.1. Chapter Overview



- 24.2. Assumptions and Methodology
- 24.3. Global Biopharmaceutical Contract Manufacturing Market, Historical Trends (2018-2022) and Forecasted Estimates (2023-2035)
 - 24.3.1. Scenario Analysis
 - 24.3.1.1. Conservative Scenario
 - 24.3.1.2. Optimistic Scenario
- 24.4. Key Market Segmentations

25 BIOPHARMACEUTICAL CONTRACT MANUFACTURING MARKET, BY TYPE OF SERVICE OFFERED

- 25.1. Chapter Overview
- 25.2. Key Assumptions and Methodology
- 25.3 Biopharmaceutical Contract Manufacturing Market: Distribution by Type of Service Offered, 2018, 2023 and 2035
- 25.3.1. API Manufacturing: Historical Trends (2018-2022) and Forecasted Estimates (2023-2035)
- 25.3.2. FDF Manufacturing: Historical Trends (2018-2022) and Forecasted Estimates (2023-2035)
- 25.4. Data Triangulation and Validation

26 BIOPHARMACEUTICAL CONTRACT MANUFACTURING MARKET, BY TYPE OF BIOLOGIC MANUFACTURED

- 26.1. Chapter Overview
- 26.2. Key Assumptions and Methodology
- 26.3 Biopharmaceutical Contract Manufacturing Market: Distribution by Type of Biologic Manufactured, 2018, 2023 and 2035
- 26.3.1. Antibodies: Historical Trends (2018-2022) and Forecasted Estimates (2023-2035)
- 26.3.2. Cell Therapies: Historical Trends (2018-2022) and Forecasted Estimates (2023-2035)
- 26.3.3. Vaccines: Historical Trends (2018-2022) and Forecasted Estimates (2023-2035)
- 26.3.4. Other Biologics: Historical Trends (2018-2022) and Forecasted Estimates (2023-2035)
- 26.4. Data Triangulation and Validation

27 BIOPHARMACEUTICAL CONTRACT MANUFACTURING MARKET, BY TYPE OF



EXPRESSION SYSTEM USED

- 27.1. Chapter Overview
- 27.2. Key Assumptions and Methodology
- 27.3 Biopharmaceutical Contract Manufacturing Market: Distribution by Type of Expression System Used, 2018, 2023 and 2035
- 27.3.1. Mammalian Expression Systems: Historical Trends (2018-2022) and Forecasted Estimates (2023-2035)
- 27.3.2. Microbial Expression Systems: Historical Trends (2018-2022) and Forecasted Estimates (2023-2035)
- 27.3.3. Other Expression Systems: Historical Trends (2018-2022) and Forecasted Estimates (2023-2035)
- 27.4. Data Triangulation and Validation

28 BIOPHARMACEUTICAL CONTRACT MANUFACTURING MARKET, BY SCALE OF OPERATION

- 28.1. Chapter Overview
- 28.2. Key Assumptions and Methodology
- 28.3. Biopharmaceutical Contract Manufacturing Market: Distribution by Scale of Operation, 2018, 2023 and 2035
- 28.3.1. Preclinical / Clinical Operations: Historical Trends (2018-2022) and Forecasted Estimates (2023-2035)
- 28.3.2. Commercial Operations: Historical Trends (2018-2022) and Forecasted Estimates (2023-2035)
- 28.4. Data Triangulation and Validation

29 BIOPHARMACEUTICAL CONTRACT MANUFACTURING MARKET, BY COMPANY SIZE

- 29.1. Chapter Overview
- 29.2. Key Assumptions and Methodology
- 29.3 Biopharmaceutical Contract Manufacturing Market: Distribution by Company Size, 2018, 2023 and 2035
- 29.3.1. Small Companies: Historical Trends (2018-2022) and Forecasted Estimates (2023-2035)
- 29.3.2. Mid-sized Companies: Historical Trends (2018-2022) and Forecasted Estimates (2023-2035)
 - 29.3.3. Large and Very Large Companies: Historical Trends (2018-2022) and



Forecasted Estimates (2023-2035)

29.4. Data Triangulation and Validation

30 BIOPHARMACEUTICAL CONTRACT MANUFACTURING MARKET, BY GEOGRAPHY

- 30.1. Chapter Overview
- 30.2. Key Assumptions and Methodology
- 30.3 Biopharmaceutical Contract Manufacturing Market: Distribution by Geography, 2018, 2023 and 2035
- 30.3.1. North America: Historical Trends (2018-2022) and Forecasted Estimates (2023-2035)
 - 30.3.1.1. US: Historical Trends (2018-2022) and Forecasted Estimates (2023-2035)
- 30.3.1.2. Canada: Historical Trends (2018-2022) and Forecasted Estimates (2023-2035)
- 30.3.2. Europe: Historical Trends (2018-2022) and Forecasted Estimates (2023-2035)
 - 30.3.2.1. Italy: Historical Trends (2018-2022) and Forecasted Estimates (2023-2035)
- 30.3.2.2. Germany: Historical Trends (2018-2022) and Forecasted Estimates (2023-2035)
- 30.3.2.3. France: Historical Trends (2018-2022) and Forecasted Estimates (2023-2035)
- 30.3.2.4. Spain: Historical Trends (2018-2022) and Forecasted Estimates (2023-2035)
 - 30.3.2.5. UK: Historical Trends (2018-2022) and Forecasted Estimates (2023-2035)
- 30.3.2.6. Rest of Europe: Historical Trends (2018-2022) and Forecasted Estimates (2023-2035)
- 30.3.3. Asia-Pacific: Historical Trends (2018-2022) and Forecasted Estimates (2023-2035)
- 30.3.3.1. China: Historical Trends (2018-2022) and Forecasted Estimates (2023-2035)
 - 30.3.3.2. India: Historical Trends (2018-2022) and Forecasted Estimates (2023-2035)
- 30.3.3.3. South Korea: Historical Trends (2018-2022) and Forecasted Estimates (2023-2035)
- 30.3.3.4. Japan: Historical Trends (2018-2022) and Forecasted Estimates (2023-2035)
- 30.3.3.5. Rest of Asia-Pacific: Historical Trends (2018-2022) and Forecasted Estimates (2023-2035)
- 30.3.4. Latin America: Historical Trends (2018-2022) and Forecasted Estimates (2023-2035)



- 30.3.5. Middle East and North Africa: Historical Trends (2018-2022) and Forecasted Estimates (2023-2035)
- 30.8. Data Triangulation and Validation

31 BIOPHARMACEUTICAL CONTRACT MANUFACTURING MARKET, BY LEADING PLAYERS

- 31.1. Chapter Overview
- 31.2. Key Assumptions and Methodology
- 31.3 Biopharmaceutical Contract Manufacturing Market: Distribution by Leading Players
- 31.4. Data Triangulation and Validation

32 CASE STUDY: VIRTUAL PHARMACEUTICAL COMPANIES

- 32.1. Chapter Overview
- 32.2. Historical Evolution of the Virtual Business Model
- 32.3. Virtual Pharmaceutical Companies as a Subset of the Overall Biopharmaceutical Industry
- 32.4. Advantages Associated with Outsourcing Operations to Virtual Service Providers
- 32.5. Key Challenges Associated with Outsourcing Operations to Virtual Service Providers

33. SWOT ANALYSIS

- 33.1 Chapter Overview
- 33.2. Strengths
- 33.3. Weaknesses
- 33.4. Opportunities
- 33.5. Threats
- 33.6. Comparison of SWOT Factors
- 33.7. Conclusion

34 FUTURE OF THE BIOPHARMACEUTICAL CMO MARKET

- 34.1. Chapter Overview
- 34.2. Outsourcing Activities to Witness Significant Growth in the Coming Years
- 34.3. Shift from One-time Contracts to Strategic Partnerships
- 34.4. Integration / Adoption of New and Innovative Technologies
 - 34.4.1. Single-use Bioreactors



- 34.4.2. Novel Bioprocess Techniques
- 34.4.3. Bioprocess Automation
- 34.5. Focus on Niche Therapeutic Areas
- 34.6. Growing Biosimilars Market to Contribute to the Growth of the Contract Services Segment
- 34.7. Capability Expansion by CMOs to become One-Stop-Shops
- 34.8. Offshoring Outsourcing Activities to Maximize Profits and Expand Existing Capacities
- 34.9. Increase in Financial Inflow and Outsourcing Budgets
- 34.10. Challenges Faced by Sponsors and Service Providers
 - 34.10.1. Concerns Related to Single-use Systems
 - 34.10.2. Issues Related to Capacity Fluctuations
- 34.11. Concluding Remarks

35 CONCLUSION

36 EXECUTIVE INSIGHTS

- 36.1. Chapter Overview
- 36.2. RoslinCT
- 36.2.1. Company Snapshot
- 36.2.2. Interview Transcript: Peter Coleman, Chief Executive Officer
- 36.3. Chapter Overview
- 36.3. JAFRAL Biosolutions
 - 36.3.1. Company Snapshot
- 36.3.2. Interview Transcript: Frenk Smrekar, Chief Executive Officer And Co-Founder
- 36.4. Chapter Overview
- 36.4. Discovery Life Sciences
- 36.4.1. Company Snapshot
- 36.4.2. Interview Transcript: Dominic Clarke, Chief Technical Officer, Cell And Gene Therapy
- 36.5. Chapter Overview
- 36.5. Bioworkshops
- 36.5.1. Company Snapshot
- 36.5.2. Interview Transcript: Nick Kotlarski, President and Chief Operating Officer
- 36.6. Aldevron
 - 36.6.1. Company Snapshot
- 36.6.2. Interview Transcript: Jeff Briganti, Senior Director Of Global Strategic Marketing



36.7. Resilience

36.7.1. Company Snapshot

36.7.2. Interview Transcript: Tarek Abdel-Gawad, Senior Director of Commercial

Strategy and Market Insights

36.8. Minaris Regenerative Medicine

36.8.1. Company Snapshot

36.8.2. Interview Transcript: Luc St-Onge, Global Head of Sales and Marketing and

Head of Business Development (Germany)

36.9. 53Biologics

36.9.1. Company Snapshot

36.9.2. Interview Transcript: Francisco Manuel Reyes Sosa, Business Development

Manager

36.10. Richter-Helm BioLogics

36.10.1. Company Snapshot

36.10.2. Interview Transcript Antje Weingarth, Manager Marketing and Sales

37 APPENDIX I: TABULATED DATA

38 APPENDIX II: LIST OF COMPANIES AND ORGANIZATIONS

39 APPENDIX III: DETAILS OF PARTNERSHIPS AND COLLABORATIONS



I would like to order

Product name: Biologics Contract Manufacturing Market by Type of Service Offered (API Manufacturing,

FDF Manufacturing), Type of Biologic Manufactured (Antibodies, Cell Therapies,

Vaccines and Other Biologics), Type of Expression System Used (Mammalian, Microbial and Others), Scale of Operation (Preclinical / Clinical and Commercial), Company Size (Small, Mid-sized, and Large and Very Large), and Key Geographical Regions (North America, Europe, Asia-Pacific, Middle East and North Africa, and Latin America): Industry Trends and Global Forecasts, 2023-2035

Product link: https://marketpublishers.com/r/BD3EA71EE833EN.html

Price: US\$ 4,799.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer

Service:

info@marketpublishers.com

Payment

First name:

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page https://marketpublishers.com/r/BD3EA71EE833EN.html

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

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 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 $+44\ 20\ 7900\ 3970$