

Global Regenerative Medicine Market Analysis & Forecast to 2025; Stem Cells, Tissue Engineering, BioBanking & CAR-T Industries

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Abstracts

This report provides a comprehensive overview of the size of the regenerative medicine market, segmentation of the market (stem cells, tissue engineering and CAR-T therapy), key players and the vast potential of therapies that are in clinical trials. Kelly Scientific analysis indicates that the global regenerative medicine market was worth \$35 billion in 2019 and will grow to over \$124 billion by 2025, with a CAGR of 23.3% between this time frame. Within this market, the stem cell industry will grow significantly at a CAGR of over x% and reach \$x billion by 2025. Tissue engineering is forecast to grow at a CAGR of x% to 2025 and potentially reach \$x billion. This report describes the evolution of such a huge market in 15 chapters supported by over 350 tables and figures in 700 pages.

An overview of regenerative medicine that includes: stem cells, allogenic and autogenic cells, umbilical cord blood banking, tissue engineering and CAR T therapies.

Global regenerative medicine market, global breakdown, application breakdown and leading market players

Detailed account of the stem cell industry market by geography, indication and company profiles

Profiles, marketed/pipeline products, financial analysis and business strategy of the major companies in this space

Focus on current trends, business environment, pipeline products, clinical trials,

and future market forecast for regenerative medicine

Insight into the challenges faced by stakeholders, particularly about the success vs. failure ratios in developing regenerative medicine drugs and therapies.

Insight into the biobanking industry globally and its impact on the overall market

Description and data for the prevalence of disease types that are addressed by regenerative medicine, stem cells, tissue engineering and CAR-T therapies

Financial market forecast through 2023 with CAGR values of all market segments outlined in the objective

SWOT analysis of the global market

Geographical analysis and challenges within key topographies including the USA, Japan, South Korea, China and Europe

Executive Summary

Regenerative medicine's main objective is to heal and replace organs/cells that have been damaged by age, trauma or disease. Congenital defects can also be addressed with regenerative medicine. Therefore, its market encompasses dermal wounds, cardiovascular disease, specific cancer types and organ replacement. To that end, regenerative medicine is a broader field and manipulates the body's immune system and regeneration potential to achieve its requirement. Financially speaking, investment into this space is dominated by grants, private investors and publicly traded stocks. Looking forward, the regenerative medicine market is promising for a number of robust reasons including:

Increasing number of potentially successful clinical trials

Increasing number of mergers and acquisitions

High unmet need in many indications

Global penetration, especially in Japan will boost the market

Of course restrictions to this market include strict regulations in certain geographies, and also the level of investment required to support R&D, clinical research, trials and commercialization. Reimbursement strategies are also paramount to success of the overall space.

There are over 700 regenerative medicine companies globally at present, that all together have a \$x billion market cap. At present the total regenerative medicine market has more than 500 products commercialized. The regenerative medicine market encompasses a number of key technology submarkets including:

Cell therapy including stem cells

Tissue Engineering

Biomaterials

BioBanking

Reconstructive surgeries for bones and joints is the mainstay of the regenerative medicine market. Geographically speaking, due to the dominance of the bone and joint reconstruction market, the US has the biggest space. This is followed by Europe. However, due to recent positive legislation in Japan and Europe, the stem cell arena will grow more substantially in these regions over the next five years. By 2025, it is possible that Europe will surpass the US market with respect to stem cell applications, and this will become more likely if the Trump Administration restricts legislation and funding.

Market Applications & Opportunities for Regenerative Therapies

Regenerative medicine, including cellular and gene therapies will have a significant impact on the expenditure of payers, once reimbursement schemes are optimized. To that end a number of conditions that regenerative medicine tackles is synonymous with an aging population such as

Cardiovascular diseases & stroke

Diabetes

Inflammatory and immune diseases

Wound healing and soft tissue regeneration

Neurodegenerative diseases e.g., ALS, Alzheimer's and Parkinson's

Spinal cord injury

Musculoskeletal disorders

Ocular disease

Global Financial Landscape

The last few years have been busy for regeneration medicine, cellular therapeutics and the gene therapy industry, with high investment from pharma giants such as Eli Lilly, BMS, Astra Zeneca and Sanofi. Company partnerships were also in motion that included Kite Pharma and Bluebird/Five Prime, Juno and Fate Therapeutics/ Editas Medicine. One of the highlights was the \$x billion, four year deal between CRISPR Technologies and Vertex which indicated that gene editing technologies are cutting edge.

Stem Cell Market Analysis & Forecast to 2025

Today the stem cell and regenerative medicine industries are interlinked and over the last number of years have grown substantially. Regenerative medicine replaces or regenerates cells, tissues or organs and in order to achieve this uses produces from the pharmaceutical, biologics, medical device and cell therapy spaces. Therefore, cell therapy, and stem cells come under the umbrella market of regenerative medicine. Cell therapy is a platform by which regenerative medicine can achieve its aim and concentrates on using cells as therapeutics to treat disease. In 2019, the global stem cell market was worth \$x billion globally, and this is set to rise to \$x billion by 2025 with a CAGR of x%.

Tissue Engineering Market Analysis and Forecast to 2025

Tissue engineering was the forerunner of the present regenerative medicine market. The area of biomaterials was developed to use cells and biological material and incorporate them into scaffolds and functional tissues. Some of the main applications of

tissue engineered products include artificial skin and cartilage and so this area dominates the dermatology, bone and joint submarket. Wound repair is also a significant area for tissue engineering, with products such as Dermagraft in the market.

The global market for tissue engineering was estimated at \$x billion in 2019 by Kelly Scientific analysis. It is forecast to grow at a CAGR of x% to 2025 and potentially reach \$x billion. Tissue engineering is being driven by the increase in technology of biomaterials, bioscaffolds and bio 3D printing. The rise in the amount of orthopedic transplantations is demanding the market to produce more innovative solutions such as 3D printed organs. In the long term future, Kelly Scientific forecasts the advance of cutting edge 3D bioprinters in this market place

Biobanking Market Analysis

The biobanking industry is made up of over 500 public and private blood banks globally. These companies and institutions collect, store and distribute adipose tissue, cord blood and birth tissues, musculoskeletal tissues, pericardium, skin, bone, vascular tissue, autologous and allogeneic cells and other biological samples. They operate by charging a collection fee and then a storage fee, which is usually operational for 20 years. Private banking costs between \$1,350 to \$2,300 as an initial fee, and then between \$100 to \$175 per annum for storage. Public banking is free, and a number of hybrid models have been introduced in Europe and Asia to date.

CAR-T Industry

The CAR-T industry is addressing unmet needs in specific relapsed cancers, however does early clinical trial data support a blockbuster status for this upcoming therapy? Some patients do indeed show long term activity and high remission rates, but there is a large proportion of patients with toxicities such as cytokine release syndrome and neurotoxicity. The main players within the CAR-T market are Juno Therapeutics, Kite Pharma, Novartis and Cellectis. The market is moving ahead, backed by years of R&D, from both academia and industry, investors capitol and small clinical studies. From 2020, Kelly Scientific forecasts that CAR T therapy will become more streamlined, with faster manufacturing times as advances in technologies take hold and clinical trials provide more robust evidence that this immunotherapy is robust. These factors, plus strategies to reduce adverse reactions and toxicities and larger players like Novartis taking stage will push CAR T therapy ahead. However, recent deaths in the Juno ROCKET trial are creating questions amongst investors. How will the CAR T space influence the total immunotherapy industry going forward? This comprehensive report

scrutinizes the total market and provides cutting-edge insights and analysis.

Key Questions Answered

What is the global market for regenerative medicine from to 2025?

What is the global market for regenerative medicine by geography, through 2025?

What is the global market for regenerative medicine by indication, through 2025?

What is the global market for the stem cell industry to 2025?

What is the global market for the stem cell industry by geography, through 2025?

What is the global market for the stem cell industry by indication, through 2025?

What disruptive technology is advancing the overall regenerative medicine market?

What are the major company players in the regenerative medicine, stem cells, tissue engineering and CAR-T industries?

What types of clinical trials are currently being performed by stakeholders and major players?

What are the strengths, weaknesses, opportunities and threats to the market?

Which geographic markets are dominating the space?

What are the advantages and disadvantages of the allogenic and autologous stem cell industry?

What are the main driving forces of this space?

What are the main restraints of the regenerative medicine industry as a whole?

What is the current environment of the global cord blood bank industry?

What are the global access challenges of the regenerative medicine market?

What is the space like in Japan, China, South Korea, USA and Europe?

What are the main challenges associated with CAR T therapy?

When will the first CAR T therapeutics be approved?

What are the current regulations for immunotherapies in USA, Europe & Japan?

What are the main manufacturing steps in CAR T therapy?

What challenges lie ahead for CAR T production?

Contents

1.0 REPORT SYNOPSIS

- 1.1 Objectives of Report
- 1.2 Executive Summary
- 1.2 Key Questions Answered in this Report
- 1.3 Data Sources and Methodology

2.0 INTRODUCTION

- 2.1 Gurdon and Yamanaka Share the Nobel Prize
- 2.2 Stem Cell Clinical Trials: Initiated in 2010
- 2.3 Types of Stem Cells
- 2.4 Adult (Tissue) Stem Cells
- 2.5 Pluripotent Stem Cells
- 2.6 Somatic Cell Nuclear Transfer (SCNT)
- 2.7 Induced pluripotent Stem Cells (iPSC)
- 2.8 Mesenchymal Cells
 - 2.8.1 MSCs in the Bone Marrow Stroma
 - 2.8.2 Isolation, Marker Specificity and Functional Properties of MSCs
 - 2.8.3 Oxygen Concentration and MSC Culture
 - 2.8.4 Assays to Define MSCs
 - 2.8.5 Differentiation Potential of MSCs
 - 2.8.6 Therapeutic Potential of MSCs
 - 2.8.7 Mesenchymal Stem Cells & Chronic Disease
 - 2.8.8 MSCs and Amyotrophic Lateral Sclerosis
 - 2.8.9 MSCs and Parkinson's Disease
 - 2.8.10 MSCs and Alzheimer Disease
 - 2.8.11 MSCs and Rheumatoid Arthritis
 - 2.8.12 MSCs and Type 1 Diabetes
 - 2.8.13 MSCs and Cardiovascular Disease
- 2.9 Hematopoietic Stem and Progenitor Cells
 - 2.9.1 In Vivo Assays for Hematopoietic Stem Cells
 - 2.9.2 In Vitro Assays for Hematopoietic Stem and Progenitor Cells
 - 2.9.3 Isolation of Hematopoietic Stem and Progenitor Cells
 - 2.9.4 Culture of Hematopoietic Cells
 - 2.9.5 Therapeutic uses of Hematopoietic Cells
- 2.10 Umbilical Cord Stem Cells

2.11 Heart Stem Cells

2.11.1 Cutting Edge Research in Heart Stem Cells

2.12 Mammary Stem Cells

2.12.1 Defining the Mammary Stem Cell

2.12.2 Influence of Model System on Stem Cell Identification

2.12.3 Breast Cancer Stem Cells

2.13 Neural Stem Cells

2.13.1 Identification of Neural Stem Cells

2.13.2 Function of Neural Stem Cells in Vivo

2.13.3 Neural Stem Cell Culture Systems

2.13.4 Isolation Strategies for Neural Stem Cells

2.13.5 Brain Tumour Stem Cells

2.13.6 Cutting Edge Research in Neural Stem Cells

2.14 Stem Cell Applications in Retinal Repair

2.14.1 Embryonic Stem Cells as Retina Therapeutics

2.14.2 Induced Pluripotent Stem Cells as Retina Therapeutics

2.14.3 Adipose Derived Mesenchymal Stem Cells as Retina Therapeutics

2.15 Liver Stem Cells

2.16 Gut Stem Cells

2.16 Pancreatic Stem Cells

2.17 Epidermal Stem Cells

3.0 STEM CELLS AND CLINICAL TRIALS

3.1 Introduction

3.2 Pluripotent Stem Cells

3.3 Limbal Stem Cells

3.4 Neural Stem Cells

3.5 Endothelial Stem or Progenitor Cells

3.6 Placental Stem Cells

3.7 Why Do Stem Cell Clinical Trials Fail?

3.8 What is the Future of Stem Cell Trials?

3.9 Cutting Edge Stem Cell Clinical Trials

3.10 Ocata Therapeutics Current Stem Cell Trials

3.11 CHA Biotech Current Stem Cell Trials

3.12 Pfizer Current Stem Cell Trials

3.13 GSK Current Stem Cell Trials

3.14 Bayer Current Stem Cell Trials

3.15 Mesoblast International Current Stem Cell Trials

- 3.16 Millennium Pharmaceutical Current Stem Cell Trial
- 3.17 AstraZeneca Current Stem Cell Trials
- 3.18 Merck Current Stem Cell Trials
- 3.19 Chimerix Current Stem Cell Trials
- 3.20 Eisai Current Stem Cell Trials
- 3.21 SanBio Current Stem Cell Trials
- 3.22 Celgene Current Stem Cell Trials
- 3.23 StemCells Current Stem Cell Trials
- 3.24 Genzyme (Sanofi) Current Stem Cell Trials
- 3.25 Teva Current Stem Cell Trials
- 3.26 MedImmune Current Stem Cell Trials
- 3.27 Janssen Current Stem Cell Trials
- 3.28 Seattle Genetics Current Stem Cell Trials
- 3.29 Baxter Healthcare Current Stem Cell Trials
- 3.30 InCyte Corp Current Stem Cell Trials

4.0 STEM CELLS, DISRUPTIVE TECHNOLOGY, DRUG DISCOVERY & TOXICITY TESTING

- 4.1 Introduction
- 4.2 Case Study: Genentech and Stem Cell Technology
- 4.3 3D Sphere Culture Systems
- 4.4 Stem Cells and High Throughput Screening
 - 4.4.1 Embryonic Stem Cells
 - 4.4.2 Adult Stem Cells
 - 4.4.3 Opportunities & Challenges
- 4.5 Genetic Instability of Stem Cells
- 4.6 Comprehensive in Vitro Proarrhythmia Assay (CiPA) & Cardiomyocytes
- 4.8 Coupling Precise Genome Editing (PGE) and iPSCs
- 4.9 Stem Cells & Toxicity Testing
 - 4.9.1 Hepatotoxicity and iPSCs
 - 4.9.2 Cardiotoxicity and iPSCs
 - 4.9.3 Neurotoxicity and iPSCs
- 4.10 Stem Cell Disease Models
- 4.11 Defining Human Disease Specific Phenotypes
 - 4.11.1 Molecular Phenotypes for Disease Modelling
 - 4.11.2 Cellular Phenotypes for Disease Modelling
 - 4.11.3 Physiological Phenotypes for Disease Modelling
 - 4.11.4 Parkinson's Disease

- 4.11.5 Alzheimer's Disease
- 4.11.6 Amyotrophic Lateral Sclerosis
- 4.11.7 Huntington's Disease
- 4.11.8 Spinal Muscular Atrophy
- 4.11.9 Down Syndrome
- 4.11.10 Cystic Fibrosis
- 4.11.11 Colorectal Cancer
- 4.12 Advantages of Stem Cell Derived Cells & Tissues for Drug Screening

5.0 STEM CELL BIOMARKERS

- 5.1 Pluripotent Stem Cell Biomarkers
- 5.2 Mesenchymal Stem Cell Biomarkers
- 5.3 Neural Stem Cell Biomarkers
- 5.4 Hematopoietic Stem Cell Biomarkers

6.0 MANUFACTURING STEM CELL PRODUCTS

- 6.1 Manufacturing Strategies For Stem Cell Products
- 6.2 BioProcess Economics for Stem Cell Products
- 6.3 Capital Investment
- 6.4 Cost of Goods
- 6.5 Bioprocess Economic Drivers & Strategies
- 6.6 hPSC Expansion & Differentiation using Planar Technology
- 6.7 hPSC Expansion using 3D Culture
- 6.8 Microcarrier Systems
- 6.9 Aggregate Suspension
- 6.10 Bioreactor Based Differentiation Strategy
- 6.11 Integrated hPSC Bioprocess Strategy
- 6.12 GMP Regulations and Stem Cell Products

7.0 INVESTMENT & FUNDING

- 7.1 What do Investors Want from Cell & Gene Therapy Companies?
- 7.2 What Makes a Good Investment?
- 7.3 What Types of Companies do Not Get Investment?
- 7.4 Global Funding
- 7.5 Cell & Gene Therapy Investment Going Forward
- 7.6 What Cell & Gene Companies are the Most Promising in 2018?

7.7 Insights into Investing in Cell and Gene Therapy Companies

8.0 REGENERATIVE MEDICINE MARKET ANALYSIS & FORECAST TO 2025

8.1 Market Overview

8.2 Global Frequency Analysis

8.3 Economics of Regenerative Medicine

8.4 Market Applications & Opportunities for Regenerative Therapies

8.4.1 Neurological Disease

8.4.2 Autoimmune Disorders

8.4.3 Cardiovascular Disease

8.4.4 Diabetes

8.4.5 Musculoskeletal Disorders

8.4.6 Ocular Disease

8.4.7 Orthopedic Disorders

8.4.8 Wound Healing

8.5 Global Financial Landscape

8.6 Regenerative Medicine Clinical Trial Statistics

8.7 Regenerative Medicine Market Forecast to 2025

8.8 Regenerative Medicine Geographic Analysis and Forecast to 2025

8.9 Regenerative Medicine Geographical Location of Companies

8.10 Regenerative Medicine Technology Breakdown of Companies

8.11 Commercially Available Regenerative Medicine Products

8.12 Major Regenerative Medicine Milestones

9.0 STEM CELL MARKET ANALYSIS & FORECAST TO 2025

9.1 Autologous & Allogenic Cell Market Analysis

9.2 Stem Cell Market by Geography

9.2.1 North America

9.2.2 Asia/Pacific

9.2.3 Europe

9.3 Stem Cell Market Forecast by Therapeutic Indication

9.3.1 Orthopedic/Musculoskeletal Stem Cell SubMarket

9.3.2 Cancer Stem Cell SubMarket

9.3.3 Cardiology/Vascular Stem Cell SubMarket Analysis

9.3.4 Wound Healing Stem Cell SubMarket Analysis

9.3.5 Skin Stem Cell SubMarket Analysis

9.3.6 Ocular Stem Cell SubMarket Forecast

9.4 Stem Cell Reagent Market Trends

10.0 TISSUE ENGINEERING TISSUE ENGINEERING MARKET ANALYSIS AND FORECAST TO 2025

10.1 Geographical Analysis and Forecast to 2025

10.1.1 North America

10.1.2 Europe

10.1.3 Asia Pacific

10.2 Geographical Analysis by Company Share

10.3 Tissue Engineering Clinical Indication Analysis & Forecast to 2025

10.3.1 Orthopedic and Musculoskeletal

10.3.2 Oncology

10.3.3 Cardiology and Vascular

10.3.4 Dermatology

10.3.5 Oral and Dental

11.0 BIOBANKING MARKET ANALYSIS

11.1 Increasing Number of Cord Blood Banks Globally

11.2 Global Biobanking Company Sector Analysis & Breakdown

11.3 Allogenic Versus Autologous Transplant Frequency

11.4 Biobanking Market Analysis & Forecast to 2025

11.5 Major Global Players

12.0 GLOBAL ACCESS & CHALLENGES OF THE REGENERATIVE MEDICINE MARKET

12.1 Regenerative Medicine Market in the USA

12.2 Regenerative Medicine in Japan

12.2.1 Financial Investment

12.2.2 Unconventional Company Investment in Regenerative Medicine

12.3 Regenerative Medicine in China

12.4 Regenerative Medicine in South Korea

13.0 CELL AND CAR T THERAPY

13.1 Challenges Relating to Cell therapy and Chimeric Antigen Receptor T Cells in Immunotherapy

- 13.1.1 Clinical Status of CD19 CAR-T Cells To Date
- 13.1.2 Clinical and Regulatory Challenges for Development of CAR T Cells
- 13.1.3 Key Regulatory Challenges Associated with CAR-T Development
- 13.1.4 Summary of Select CAR-T Products by Juno, Novartis and Kite
- 13.1.5 Clinical Benefit Versus Toxicity in CD19-Directed ALL Clinical Trials
- 13.1.6 How to Manage Toxicity of CAR-T Therapy
- 13.2 Regulations Pertaining to Immunotherapy, including Adoptive Cell Therapy (CAR-T and TCR) Immunotherapy Regulation in the USA
 - 13.2.1 Center for Biologics Evaluation and Research (CBER)
 - 13.2.2 Compliance and Surveillance
 - 13.2.3 Extra Resources on Immunotherapeutics from the FDA
 - 13.2.4 Cellular, Tissue and Gene Therapies Advisory Committee
 - 13.2.5 Consumer Affairs Branch (CBER) Contact in FDA
 - 13.2.6 FDA Regulations Pertaining to Immunotherapies
 - 13.2.7 Case Study Ovarian Cancer Immunotherapy Regulations
 - 13.2.7.1 Efficacy
 - 13.2.7.2 Adverse Effects
 - 13.2.8 Trial Design Considerations for Immunotherapy
 - 13.2.9 Development of Immune-Related Response Criteria (irRC) & Clinical Endpoints Specific to Immunotherapies
- 13.3 Regulations for Cell Therapy & Immunotherapy in Japan
 - 13.3.1 PMDA and Cell Therapy & Immunotherapy
 - 13.3.2 Increasing the Efficiency in Cell Therapy & Immunotherapy Regulatory Review
 - 13.3.3 Forerunner Review Assignment System
 - 13.3.4 Revised Guidelines for Clinical Evaluation of Anti ?Malignant Tumor Agents
 - 13.3.5 Key Contacts Within the PMDA for Cell Therapy & Immunotherapeutics
- 13.4 European Regulation and Cell Therapy & Immunotherapeutics
 - 13.4.1 Introduction
 - 13.4.2 Challenges for Cell Therapy & Immunotherapy in EMEA
 - 13.4.3 EMA Status on Potency Testing
 - 13.4.3.1 In Vivo Potency Testing
 - 13.4.3.2 In Vitro Potency Testing
 - 13.4.3.3 Viable Cell Count
 - 13.4.3.4 Autologous Cell Based Products
 - 13.4.3.5 Reference Preparation
 - 13.4.3.6 Adjuvant Containing Immunotherapy Products
 - 13.4.4 EMA Status on Identifying hyper, Hypo or non-Responders
 - 13.4.5 Challenges Relating to Biomarkers in Immunotherapy
 - 13.4.6 Challenges Relating to Chimeric Antigen Receptor T Cells in Immunotherapy

- 13.4.7 Estimating Optimal Cut-Off Parameters
- 13.4.8 EU-Approved Immunotherapies in Melanoma
- 13.4.9 Key Contacts Within EMA for Cell Therapy & Immunotherapeutics
- 13.5 Manufacturing of Immunotherapies
 - 13.5.1 Introduction
 - 13.5.2 Generation of CAR-Modified T Cells
 - 13.5.3 What Co-Stimulation and Activity Domain is Optimal to Use?
 - 13.5.4 Optimizing Cell Culture Media
 - 13.5.5 Manufacturing Lentiviral Vectors
 - 13.5.6 Detection of Integrated CAR-Expressing Vectors
 - 13.5.7 Donor Lymphocyte Infusion Procedure
 - 13.5.8 Ex Vivo Costimulation & Expansion of Donor T Cells
 - 13.5.9 Infusion to the Patient
 - 13.5.10 Manufacturing Devices and Instruments Required for Immunotherapy Production
 - 13.5.10.1 Leukapheresis
 - 13.5.10.2 Cell Counters and Analyzer
 - 13.5.10.3 Cell Seeding, Growth and Propagation
 - 13.5.11 Good Manufacturing Procedure (GMP) for Immunotherapy
 - 13.5.12 Case Study Production of Lentivirus Induced Dendritic Cells under GMP Conditions
 - 13.5.13 Quality Control
 - 13.5.14 Regulatory Affairs
 - 13.5.15 Key Challenges in Manufacturing
 - 13.5.15.1 Electroporation of T-cells
 - 13.5.15.2 Allogenic CAR T cells
 - 13.5.15.3 Relapse Rates are Critical
 - 13.5.15.4 Antigen Negative Relapse
 - 13.5.15.5 Incorporating Suicide Genes
 - 13.5.16 Automation in Cell Therapy Manufacturing
 - 13.5.17 Autologous Cell Therapy Manufacture Scale Up
- 13.6 Supply Chain & Logistics
 - 13.6.1 Introduction
 - 13.6.2 Case Study: Juno Therapeutics
- 13.7 Pricing & Cost Analysis
 - 13.7.1 Introduction
 - 13.7.2 CAR T Therapy Market Evaluation
 - 13.7.3 Current Deals Within the CAR T Market
- 13.8 CAR-T Therapy and Solid Tumors

13.8.1 Challenges for Solid Tumors

13.8.1.1 Off-Tumor Toxic Responses

13.8.1.2 Poor Penetration to Tumor Site

13.8.1.3 Increasing Therapeutic Efficiency

13.8.2 Avoiding Immunosuppression within Tumor Microenvironment

13.8.3 Clinical Trials Show Promise

14.0 COMPANY PROFILES

14.1 Astellas Institute for Regenerative Medicine (Ocata Therapeutics)

14.1.1 Company Background

14.1.2 Products

14.1.3 Financials

14.1.4 Company Strategy

14.2 Athersys

14.2.1 Company Background

14.2.2 Products

14.2.3 Financial Analysis

14.2.4 Company Strategy

14.3 Baxter International (Baxalta, Shire)

14.3.1 Company Background

14.3.2 Financial Analysis

14.3.3 Company Strategy

14.4 Caladrius Biosciences (NeoStem)

14.4.1 Company Details

14.4.2 Products

14.4.2.1 CLBS20

14.4.2.2 CLBS03 Treg Cellular Therapy

14.4.2.3 CLBS12 CD34 Cell Therapy

14.4.3 Financial Analysis

14.4.4 Company Strategy

14.5 Cynata Therapeutics

14.5.1 Company Background

14.5.2 Product Details

14.5.3 Financial Data

14.5.4 Company Strategy

14.6 Cytori Therapeutics

14.6.1 Company Products

14.6.2 Financial Analysis

- 14.6.3 Company Strategy
- 14.7 MEDIPOST
 - 14.7.1 Company Details
 - 14.7.2 Company Products
 - 14.7.2.1 CellTree Umbilical Cord Blood Bank
 - 14.7.2.2 CARTISTEM®
 - 14.7.2.3 NEUROSTEM®
 - 14.7.2.4 PNEUMOSTEM®
 - 14.7.3 Financial Analysis
- 14.8 Mesoblast
 - 14.8.1 Company Details
 - 14.8.1.1 Unique Features of Mesoblast and its Disruptive Technology
 - 14.8.1.2 Allogeneic Mesenchymal Lineage Adult Stem Cells (MLCs)
 - 14.8.1.3 Mechanism of Action of MLC Products
 - 14.8.1.4 Manufacturing of Mesoblast MLC-Based Products
 - 14.8.1.5 Mesoblast Patent Portfolio
 - 14.8.2 Mesoblast Product Portfolio
 - 14.8.2.1 MSC-100-IV/TEMCELL® for Acute Graft Versus Host Disease (aGVHD)
 - 14.8.2.2 MPC-150-IM - Chronic Heart Failure (CHF)
 - 14.8.2.3 MPC-25-IC for Acute Myocardial Infarction
 - 14.8.2.4 MPC-06-ID - Chronic Low Back Pain (CLBP) due to Degenerative Disc Disease (DDD)
 - 14.8.2.5 MPC-300-IV for Biologic-Refractory Rheumatoid Arthritis
 - 14.8.2.6 MPC-300-IV for Diabetic Nephropathy
 - 14.8.2.7 MPC-100-IV for Crohn's Disease
 - 14.8.2.8 MPC-25-Osteo for Spinal Fusion
 - 14.8.3 Mesoblast International Strategic Business Collaborations
 - 14.8.4 Mesoblast Financial Analysis
- 14.9 NuVasive
 - 14.9.1 Company Details
 - 14.9.2 Biologic Products for the Spinal Surgery Market
 - 14.9.2.1 Formagraft
 - 14.9.2.2 AttraX
 - 14.9.2.3 Propel DBM
 - 14.9.2.4 Osteocel Plus and Pro
 - 14.9.3 Financial Analysis
 - 14.9.4 Company Business Strategy
- 14.10 Osiris Therapeutics
 - 14.10.1 Company Profile

- 14.10.1.1 BioSmart Cryopreservation Technology
- 14.10.1.2 MSC Primer Technology
- 14.10.2 Products
 - 14.10.2.1 Grafix
 - 14.10.2.2 BIO
 - 14.10.2.3 Cartiform
 - 14.10.2.4 Stravix
- 14.10.3 Company Financial Analysis
- 14.10.4 Company Strategy
- 14.11 Plasticell
 - 14.11.1 Company Profile
- 14.12 Pluristem Therapeutics
 - 14.12.1 Company Profile
 - 14.12.2 Products
 - 14.12.2.1 PLacental eXpanded (PLX) Cells
 - 14.12.2.2 PLX-PAD
 - 14.12.2.3 PLX-R18
 - 14.12.3 Financial Analysis
 - 14.12.4 Business Strategy
- 14.13 Pfizer
 - 14.13.1 Company Profile
- 14.14 StemCells Inc
 - 14.14.1 Company Profile
 - 14.14.2 HuCNS-SC Platform Technology
 - 14.14.3 Clinical Trial Analysis
 - 14.14.4 Financial Analysis
- 14.15 STEMCELL Technologies
 - 14.15.1 Company Details
 - 14.15.2 Product Details
- 14.16 Takara Bio
 - 14.16.1 Company Details
 - 14.16.2 Product Portfolio
 - 14.16.2.1 HF10 Anti-Cancer Therapy
 - 14.16.2.2 TCR Gene Therapy
 - 14.16.2.3 MazF Gene Therapy
 - 14.16.3 Centre for Cell and Gene Processing
 - 14.16.4 Company Financials
 - 14.16.5 Company Strategy
- 14.17 Tigenix

14.17.1 Company Background

14.17.2 Products

14.17.3 Financial Data

14.17.4 Company Strategy

15.0 SWOT INDUSTRY ANALYSIS

15.1 What has Strengthened the Industry Thus Far?

15.2 Allogenic and Autologous Stem Cell Industry SWOT Analysis

15.3 What are the Main Driving Forces of this Space?

15.4 Restraints of the Regenerative Medicine Industry as a Whole

15.5 Industry Opportunities Within this Sector

15.6 USA SWOT Analysis

15.6.1 Growth Opportunities

15.6.2 Drivers

15.6.3 Market Challenges

15.7 UK SWOT Analysis

15.7.1 Growth Opportunities

15.7.2 Drivers

15.7.3 Market Challenges

15.8 South Korea SWOT Analysis

15.8.1 Growth Opportunities

15.8.2 Drivers

15.8.3 Market Challenges

15.9 China SWOT Analysis

15.9.1 Growth Opportunities

15.9.2 Drivers

15.9.3 Challenges

15.10 Japan SWOT Analysis

15.10.1 Opportunities

15.10.2 Market Drivers

15.10.3 Challenges

15.11 Singapore SWOT Analysis

15.11.1 Opportunities

15.11.2 Market Drivers

15.11.3 Challenges

List Of Exhibits

LIST OF EXHIBITS

- Exhibit 2.1 Stem Cell Discovery and Development Timeline
- Exhibit 2.2 Potential Therapeutic Uses of Stem Cells
- Exhibit 2.3 Embryonic Stem Cell Differentiation
- Exhibit 2.4 Pluripotent Stem Cells
- Exhibit 2.5 Clinical Uses of Stem Cells
- Exhibit 2.6 Illustration of Inner Cell Mass Generation for Stem Cell Culture
- Exhibit 2.7 Drug Development Strategies for Patient Derived iPSCs
- Exhibit 2.8 Mesenchymal Stem Cell Lineage Progression & Differentiation
- Exhibit 2.9 Mesenchymal Stem Cell Differentiation
- Exhibit 2.10 Potential Therapeutic Effects of MSCs
- Exhibit 2.11 Hematopoietic Stem Cells & the Formation of Mature Blood Cells
- Exhibit 2.12 Donor Types for HSC transplantation
- Exhibit 2.13 Total Number of Stem Cell Donors 1989-Present
- Exhibit 2.14 Cross Section of Umbilical Cord Sample for Stem Cell Extraction
- Exhibit 2.15 Umbilical Cord Blood and Wharton's Jelly; Sources of HSCs and MSCs
- Exhibit 2.16 Comprehensive List of Conditions Treated by Cord Blood Transplants
- Exhibit 2.17 Cardiac Progenitor Cell Populations
- Exhibit 2.18 Transplanted Cardiac Progenitor Cells: Potential Mechanism of Action in the Myocardium
- Exhibit 2.19 Mammary Stem Cells in the Presence and Absence of Hormones
- Exhibit 2.20 Mammary Stem Cell Tree Following Transplantation
- Exhibit 2.21 Production of Neurons, Astrocytes and Oligodendrocytes from Neural Stem Cells
- Exhibit 2.22 Physiology of the Eye
- Exhibit 2.23 Physiological Functions of Each Eye Component
- Exhibit 2.24 Healthy & Degenerated Retinal Pigment Epithelium
- Exhibit 2.25 Human Embryonic Stem Cell-Derived Retinal Pigment Epithelium
- Exhibit 2.26 Using Stem Cells to Replace Dysfunctional Retinal Pigment Epithelial Cells
- Exhibit 2.27 Using Stem Cells to Replace Retinal Nerve Cells
- Exhibit 2.28 Stem Cells Located Around the Central Vein in the Liver
- Exhibit 2.29 Gut Stem Cells are Located in the Crypts of Lieberhahn
- Exhibit 2.30 Localization of Epidermal & Dermal Stem Cells
- Exhibit 3.1 Current Therapeutic Areas and Disease States with Number of Stem Cell Clinical Trials, Globally
- Exhibit 3.2 Current Geographical Location and Number of Stem Cell Clinical Trials,

Globally

Exhibit 3.3 Current Geographical Location and Number of Stem Cell Clinical Trials, USA

Exhibit 3.4 Current Geographical Location and Number of Stem Cell Clinical Trials, Europe

Exhibit 3.5 Current Geographical Location and Number of Stem Cell Clinical Trials, East Asia

Exhibit 3.6 Select hESC and iPSC-Based Products in Clinical Trials by Disease, Stage and Trial Status

Exhibit 3.7 Selected Studies and Key Findings of PSC-Based Therapies in Development for AMD, Diabetes, Liver Disease, Parkinson's and Thalassemia

Exhibit 3.8 Ocata Therapeutics Current Stem Cell Trials, Globally

Exhibit 3.9 CHA Biotech Current Stem Cell Trials, Globally

Exhibit 3.10 Pfizer Current Stem Cell Trials, Globally

Exhibit 3.11 GSK Current Stem Cell Trials, Globally

Exhibit 3.12 Bayer Current Stem Cell Trials, Globally

Exhibit 3.13 Mesoblast International Current Stem Cell Trials, Globally

Exhibit 3.14 Millennium Pharmaceutical Current Stem Cell Trials, Globally

Exhibit 3.15 AstraZeneca Current Stem Cell Trials, Globally

Exhibit 3.16 Merck Current Stem Cell Trials, Globally

Exhibit 3.17 Chimerix Current Stem Cell Trials, Globally

Exhibit 3.18 Eisai Current Stem Cell Trials, Globally

Exhibit 3.19 SanBio Current Stem Cell Trials, Globally

Exhibit 3.20 Celgene Current Stem Cell Trials, Globally

Exhibit 3.21 StemCells Current Stem Cell Trials, Globally

Exhibit 3.22 Genzyme (Sanofi) Current Stem Cell Trials, Globally

Exhibit 3.23 Teva Current Stem Cell Trials, Globally

Exhibit 3.24 MedImmune Current Stem Cell Trials, Globally

Exhibit 3.25 Janssen Current Stem Cell Trials, Globally

Exhibit 3.26 Seattle Genetics Current Stem Cell Trials, Globally

Exhibit 3.27 Baxter Healthcare Current Stem Cell Trials, Globally

Exhibit 3.28 InCyte Corp Current Stem Cell Trials, Globally

Exhibit 4.1 Disease Models Generated from iSPC using Genome Editing

Exhibit 4.2 Stem Cells Used for Drug Screening

Exhibit 4.3 Successful Human iPSC Mediate Therapy Cases

Exhibit 4.4 Number of US Patients That Could Benefit From Stem Cell Therapeutics

Exhibit 4.5 Genentechs Stem Cell Platform for Drug & Toxicity Screening

Exhibit 4.6 Key Challenges in Assessing Genetic Instability of Stem Cells

Exhibit 4.7 Comprehensive In Vitro Proarrhythmia Assay (CiPA) Components

Exhibit 4.8 Ex Vivo Gene Therapy and Stem Cell Technology

- Exhibit 4.9 Genome Editing and iPSCs
- Exhibit 4.10 Gene Edited iPSC/hES-Mediated Novel Therapy Development
- Exhibit 4.11 Comparison of 3D and 2D Cultures of iPSC-Derived Hepatocytes Following Treatment with Toxins, Anti-Proliferative Agents and Other Drugs
- Exhibit 4.12 Potential Applications of Human iPSCs for Liver Diseases
- Exhibit 4.13 Myocardial Tissue: Cardiomyocytes, Endothelial Cells and Fibroblasts
- Exhibit 4.14 Cardiovascular Disease-Specific Human Pluripotent Stem Cell Lines by Genetic Cause and Drug Testing
- Exhibit 4.15 Culture of Human iPSC-Derived Dopaminergic Neurons over 14 Days
- Exhibit 4.16 Strategies for Generating Disease Models Using Human Pluripotent Stem Cells (PSCs)
- Exhibit 4.17 Criteria for Disease Modelling Using Pluripotent Stem Cells
- Exhibit 4.18 Models of Monogenic Dominant Diseases
- Exhibit 4.19 Models of Monogenic Recessive Diseases
- Exhibit 4.20 Models of Monogenic X-linked Recessive Diseases
- Exhibit 4.21 iPSCs in Neurological Disease Modeling, Drug Screening & Cell Therapy
- Exhibit 4.22 Advantages and Uses of Intestinal Organoids
- Exhibit 5.1: Main Biomarkers Associated with Pluripotent Stem Cells
- Exhibit 5.2: Pluripotent Stem Cell Biomarkers
- Exhibit 5.3 Main Biomarkers Associated with Mesenchymal Stem Cells
- Exhibit 5.4 Mesenchymal Stem Cell Biomarkers
- Exhibit 5.5 Main Biomarkers Associated with Neural Stem Cells
- Exhibit 5.6 Neural Stem Cell Biomarkers
- Exhibit 5.7 Main Biomarkers Associated with Hematopoietic Stem Cells
- Exhibit 5.8 Hematopoietic Stem Cell Biomarkers
- Exhibit 6.1 Bioprocess Development Considerations for hPSC-Derived Products
- Exhibit 6.2 Technologies Used for Expansion & Differentiation of hPSC-Derived Cell Products
- Exhibit 6.3 Comparison of Key Performance Characteristics of Cardiomyocytes, Hepatocytes, Neurons, Neural Progenitor Cells, Endoderm Progenitors and Hepatocytes in Planar & Bioreactor Based Differentiation Protocols
- Exhibit 6.4 Integrated Expansion & Differentiation of hPSCs Studies by Cell, Process, Cell Density, Process Time and Target Cells Produced
- Exhibit 6.5 hPSC Bioprocess Strategies, Planar, Segregated 3D & Integrated: Advantages & Disadvantages
- Exhibit 6.6 Main Objectives of GMP Manufacturing
- Exhibit 6.7 GMP Facilities Required for Stem Cell Product Manufacturing
- Exhibit 6.8 Manufacturing Overview of hPSCs under GMP Regulation
- Exhibit 6.9 Key Steps in Manufacturing GMP Regulated iPSCs

- Exhibit 6.10 Characterization and Release Assays for Human iPSCs Manufactured under GMP Conditions
- Exhibit 6.11 MCB Viral Assays for use on Human iPSCs Bank
- Exhibit 6.12 Differences Between Autologous & Allogeneic Cell Therapy Models
- Exhibit 7.1 Selected Venrock Biotech and Healthcare Exits
- Exhibit 7.2 Stem Cell Funding Bodies, Globally
- Exhibit 7.3 Stem Cell Societies and Consortiums by Geography
- Exhibit 7.4 Total Stem Cell NIH Funding 2014-2017
- Exhibit 7.5 NIH Funded Stem Cell Related Projects 2014-2017
- Exhibit 7.6 Tabular Data NIH Funded Stem Cell Related Projects 2014-2017
- Exhibit 7.7 CIRM Investment Funding by Stem Cell Type
- Exhibit 7.8 CIRM Stem Cell Project Investment Funding by Therapeutic Area
- Exhibit 7.9 Promising Cell & Gene Companies
- Exhibit 8.1 Global Frequency Indicator Trend of Terms Regenerative Medicine, Cell Therapy and Tissue Engineering, 2007-2017
- Exhibit 8.2 GeoMap Frequency Indicator Trend of Terms Regenerative Medicine, Cell Therapy and Tissue Engineering, 2007-2017
- Exhibit 8.3 Increased Proportion of People Over 65 Through 2050
- Exhibit 8.4 Percentage of Global Population Aged 65 Plus 2015-2050
- Exhibit 8.5 Global Alzheimer's Disease Market Forecast
- Exhibit 8.6 Global Cardiovascular Market Forecast
- Exhibit 8.7 Global Diabetes Therapy and Device Market Forecast
- Exhibit 8.8 Bone Graft Global Market Forecast
- Exhibit 8.9 Bone Graft Global Market Forecast by Geography
- Exhibit 8.10 Total Global Financings of the Regenerative Medicine, Cell and Gene Therapy and Tissue Engineering Sector
- Exhibit 8.11 Total Global Financing of Regenerative Medicine & Cellular/Gene Therapy by Type
- Exhibit 8.12 Number of Global Clinical Trials by Phase of Regenerative Medicine, Cell and Gene Therapy Studies
- Exhibit 8.13 Number of Global Clinical Trials by Indication of Regenerative Medicine, Cellular & Gene Therapeutics
- Exhibit 8.14 Major Clinical Trial Events in Regenerative Medicine
- Exhibit 8.15 Global Regenerative Medicine Market Value Tabular Forecast to 2025
- Exhibit 8.16 Global Regenerative Medicine Market Value Forecast to 2025
- Exhibit 8.17 Regenerative Medicine Geographic Analysis and Forecast to 2025
- Exhibit 8.18 Regenerative Medicine Geographic Forecast Table to 2025
- Exhibit 8.19 Regenerative Medicine Market Share by Geography 2019
- Exhibit 8.20 Regenerative Medicine Market Share Forecast by Geography 2025

- Exhibit 8.21 North America Regenerative Medicine Forecast to 2025
- Exhibit 8.22 European Regenerative Medicine Forecast to 2025
- Exhibit 8.23 Asia Pacific Regenerative Medicine Forecast to 2025
- Exhibit 8.24 RoW Regenerative Medicine Forecast to 2025
- Exhibit 8.25 Geographical Location of Regenerative Medicine Companies
- Exhibit 8.26 Regenerative Medicine Technology Breakdown of Companies
- Exhibit 8.27 Number and Geographical Location of Regenerative Medicine, Cellular Therapy & Gene Therapy Companies, Globally
- Exhibit 8.28 Select FDA-Approved Regenerative Medicine Products by Biologics. Cell Based and Biopharmaceuticals
- Exhibit 8.29 Regulatory Approved & Commercialized Regenerative Medicine Products Currently on the Market
- Exhibit 8.30 Major Regenerative Medicine Milestones
- Exhibit 9.1 Global Stem Cell Therapy Market Forecast Table to 2025
- Exhibit 9.2 Global Stem Cell Therapy Market Forecast to 2025
- Exhibit 9.3 Stem Cell Market Share by Adult and Embryonic Stem Cells and Stem Cell Banking
- Exhibit 9.4 Major Clinical Trial Events in Stem Cell Medicine
- Exhibit 9.5 Stem Cell Geographic Market Share Forecast to 2025
- Exhibit 9.6 Global Stem Cell Market Share by Geographic Region 2019
- Exhibit 9.7 Global Stem Cell Market Share by Geographic Region 2025
- Exhibit 9.8 North American Stem Cell Market Forecast to 2025
- Exhibit 9.9 Asia Pacific Stem Cell Market Forecast to 2025
- Exhibit 9.10 European Stem Cell Market Forecast to 2025
- Exhibit 9.11 Rest of the World Stem Cell Market Forecast to 2025
- Exhibit 9.12 Market Share of Top Therapeutic Indications in Stem Cell Space, 2019
- Exhibit 9.13 Market Share of Top Therapeutic Indications in Stem Cell Space, 2025
- Exhibit 9.14 Stem Cell Market Forecast by Therapeutic Indications to 2025
- Exhibit 9.15 Orthopedic/Musculoskeletal Stem Cell SubMarket Forecast to 2025
- Exhibit 9.16 Cancer Stem Cell SubMarket Forecast to 2025
- Exhibit 9.17 Cardiology/Vascular Stem Cell SubMarket Forecast to 2025
- Exhibit 9.18 Wound Healing Stem Cell SubMarket Forecast to 2025
- Exhibit 9.19 Skin Stem Cell Products and Sources
- Exhibit 9.20 Skin Stem Cell SubMarket Forecast to 2025
- Exhibit 9.21 Ocular Stem Cell SubMarket Forecast to 2025
- Exhibit 9.22 Current Top Brands Being Used for Stem Cell R&D
- Exhibit 9.23 Most Frequent Method of Obtaining Stem Cell Lines in R&D
- Exhibit 9.24 Percentage of Stem Cell Characterization Analysis Kits Used in R&D
- Exhibit 9.25 Percentage of Stem Cell Differentiation Kits Used in R&D

Exhibit 9.26 Most Common Types of Stem Cells Used in R&D by Mouse, Human & Rat Origin

Exhibit 10.1 Global Tissue Engineering Market Tabular Forecast to 2025

Exhibit 10.2 Global Tissue Engineering Market Forecast to 2025

Exhibit 10.3 Global Tissue Engineering Market Forecast by Geographic Region to 2025

Exhibit 10.4 North America Tissue Engineering Market Forecast to 2025

Exhibit 10.5 Europe Tissue Engineering Market Forecast to 2025

Exhibit 10.6 Asia Pacific Tissue Engineering Market Forecast to 2025

Exhibit 10.7 Geographical Breakdown of Tissue Engineering Companies Globally

Exhibit 10.8 Public and Privately Held Tissue Engineering Company Distribution, Globally

Exhibit 10.9 Main Players in the Tissue Engineering Market

Exhibit 10.10 Main Players in the CAR-T Market

Exhibit 10.11 Main Players in the TCR Market

Exhibit 10.12 Main Players in the NK Cell Market

Exhibit 10.13 Main Players in the TiLs Market

Exhibit 10.14 Global Tissue Engineering Submarket Breakdown by Market Share 2019

Exhibit 10.15 Global Tissue Engineering Submarket Breakdown by Market Share Forecast 2025

Exhibit 10.16 Tissue Engineering Submarket Breakdown Forecast Table to 2025

Exhibit 10.17 Tissue Engineering Submarket Breakdown Forecast to 2025

Exhibit 10.18 Orthopedics/Musculoskeletal Tissue Engineering Market Forecast to 2025

Exhibit 10.19 Oncology Tissue Engineering Market Forecast to 2025

Exhibit 10.20 Cardiology and Vascular Tissue Engineering Market Forecast to 2025

Exhibit 10.21 Dermatology Tissue Engineering Market Forecast to 2025

Exhibit 10.22 Oral and Dental Tissue Engineering Market Forecast to 2025

Exhibit 11.1 Number of Stem Cell Donors by Geographical Location

Exhibit 11.2 Number and Geographical Location of Global Unrelated Cord Blood Units

Exhibit 11.3 Market Share of Companies in the BioBanking Industry

Exhibit 11.4 Market Share within Therapeutic Companies in the BioBanking Industry

Exhibit 11.5 Market Share within Cell & Tissue Banks in the BioBanking Industry

Exhibit 11.6 Percentage of Allogenic & Autologous Transplantations

Exhibit 11.7 Percentage Breakdown of Indications using Autologous Umbilical Cord Blood Transplants

Exhibit 11.8 Percentage Breakdown of Indications using Allogenic Umbilical Cord Blood Transplants

Exhibit 11.9 Global Cord Blood Banking Market Forecast to 2025

Exhibit 11.10 Stem Cell Biobanking Market Segments

Exhibit 11.11 Top Global Cord Blood and Tissue Companies

- Exhibit 11.12 Important Players in the International Private Cord Bank Market
- Exhibit 12.1 Key Challenges to the Regenerative Medicine & Cellular/Gene Therapy Market
- Exhibit 12.2 Company and Indication that will Benefit from New 21st Century Cures Act, USA
- Exhibit 12.3 Cell and Gene Based Therapy in Japan as Defined by the PMDA
- Exhibit 12.4 Regulatory System in Japan for Regenerative Medicine and Cell and Gene Therapy Products
- Exhibit 12.5 Main Stem Cell Research Institutes in China
- Exhibit 13.1 Selected CD19-directed Product Candidates in Clinical Trials by Costimulatory & Binding Domains, Starting Cell Population, Vector and Ablation Technology
- Exhibit 13.2 Select CD19-Directed ALL Clinical Trials
- Exhibit 13.3 Select Anti-CD22 CAR-T Clinical Projects
- Exhibit 13.4 CBER Compliance and Surveillance Activities
- Exhibit 13.5 Contacts for the Cellular, Tissue and Gene Therapies Advisory Committee, FDA
- Exhibit 13.6 Clinical Regulatory Pathway – Conventional Route
- Exhibit 13.7 Clinical Regulatory Pathway – Option for Rapid Translation
- Exhibit 13.8 PMDA Total Review Period of Standard Drugs
- Exhibit 13.9 PMDA Total Review Period of Priority Drugs
- Exhibit 13.10 Number of Approved Recombinant Protein Products by PMDA
- Exhibit 13.11 Forerunner Review Assignment System Timeframe
- Exhibit 13.12 Adaptive Licensing and Accelerated Approval in Japan ?US ?EU
- Exhibit 13.13 Key Contacts Within PMDA, Japan
- Exhibit 13.14 CheckMate 066 Clinical Trial
- Exhibit 13.15 CheckMate 037 Clinical Trial
- Exhibit 13.16 Contact Details for EMA Cell Therapy & Immunotherapy Experts
- Exhibit 13.17 Method of Generating CAR-Modified T Cells
- Exhibit 13.18 Clinical Activity, Cost Structure and Patient Convenience Flow Chart of CAR-T Therapy
- Exhibit 13.19 General Technical and Personnel Requirements of a GMP, QC, QA, FDA Regulated Cell Therapy Manufacturing Facility
- Exhibit 13.20 Technician/Scientific Requirements for CAR T Manufacturing
- Exhibit 13.21 Selection of Apheresis Instruments Currently on the Market
- Exhibit 13.22 Selection of Cell Counters and Analyzer Instruments Currently on the Market
- Exhibit 13.23 Main Objectives of GMP Manufacturing Immunotherapeutics
- Exhibit 13.24 Main Objectives of Quality Control While Manufacturing

Immunotherapeutics

Exhibit 13.25 Main Objectives of Regulatory Affairs During Manufacturing

Immunotherapeutics

Exhibit 13.26 CAR-T Studies Using mRNA Transfection Electroporation

Exhibit 13.27 Allogenic Versus Autologous Cell Manufacturing

Exhibit 13.28 Challenges for Autologous Cell Therapy Manufacture

Exhibit 13.29 Current Company/Institutions with Suicide Gene CAR T Projects

Exhibit 13.30 Advantages of Using Automated Cell Therapy Manufacturing

Exhibit 13.31 Main Drivers to Implement Automated Cell Therapy Manufacturing

Exhibit 13.32 Main Benefits of Automated Cell Therapy Manufacturing

Exhibit 13.33 Advantages & Disadvantages of Autologous Cell Therapy Manufacture
Scale Up

Exhibit 13.34 Streptamer® -Based Magnetic Bead Cell Isolation

Exhibit 13.35 Juno Therapeutics Manufacturing Facility Objectives

Exhibit 13.36 Annual Cost of Patented Cancer Therapeutics from 2000 to Today

Exhibit 13.37 Cost of Nivolumab, Pembrolizumab & Ipilimumab per mg

Exhibit 13.38 Current Juno Therapeutics Trials and CAR T Products

Exhibit 13.39 Current CAR T Business Deals

Exhibit 13.40 Selected Antigens, Endomains and Gene Transfer Methods Used for CAR-T Therapy

Exhibit 13.41 Immunosuppressive Modulators in Tumor Microenvironment

Exhibit 13.42 Challenges for CAR-T therapy and Solid Tumors

Exhibit 13.43 Tumor Associated Antigens for CART Therapy by Tissue Type

Exhibit 13.44 Select Clinical Trials using CAR-T in Solid Tumors

Exhibit 14.1 MultiStem Platform in Action

Exhibit 14.2 Key Advantages of MultiStem

Exhibit 14.3 Athersys Product and Clinical Pipeline

Exhibit 14.4 Athersys Key Business Strategies

Exhibit 14.5 Baxter International Product Revenue by Class

Exhibit 14.6 Baxter International Product Revenue by Geography

Exhibit 14.7 Baxter International Breakdown of Product Revenue

Exhibit 14.8 Caladrius Expertise in Cell Type and Therapeutic Application Portfolio

Exhibit 14.9 PCT Caladrius CLBS03 Treg Cellular Therapy Manufacturing Process

Exhibit 14.10 Caladrius Revenue

Exhibit 14.11 Caladrius Clinical Manufacturing Revenue

Exhibit 14.12 Caladrius Process Development Revenue

Exhibit 14.13 Cytori Cell Therapy Mechanism of Action in Angiogenesis, Inflammation and Wound Remodeling

Exhibit 14.14 Cytori Therapeutics Cell Therapy Clinical Pipeline

- Exhibit 14.15 MediPost Product Pipeline by Indication and Clinical Study Phase
- Exhibit 14.16 Medipost Sales Figures
- Exhibit 14.17 CellTree Umbilical Cord Blood Bank Program Details and Pricing
- Exhibit 14.18 Medipost Revenue Share by Product Category
- Exhibit 14.19 Medipost Sales Revenue by Product Category
- Exhibit 14.20 Medipost Umbilical Cord Blood Bank Revenue
- Exhibit 14.21 Medipost Stem Cell Drug Sales Revenue
- Exhibit 14.22 Medipost R&D Investment
- Exhibit 14.23 Mesenchymal Lineage Adult Stem Cells (MLCs) Secrete a Variety of Immunomodulatory Molecules
- Exhibit 14.24 Mesoblast Mesenchymal Lineage Adult Stem Cell (MLC) Functional Properties
- Exhibit 14.25 Mesoblast Expansion and Immune Privilege of MLC Technology
- Exhibit 14.26 Mesoblast Complementary Technology Platforms
- Exhibit 14.27 Mechanism of Action of MPC-150-IM, MPC-06-ID, MPC-300-IV, TEMCELL(R)HS. Inj. and MSC-100-IV and MPC-25-OSTEO
- Exhibit 14.28 Mesoblast MLC-Based Product Manufacturing and Distribution Process
- Exhibit 14.29 Mesoblast Patent Portfolio with Expiration and Validity through 2035
- Exhibit 14.30 Mesoblast Tier 1 and Tier 2 Product Candidates by Program and Clinical Stage
- Exhibit 14.31 Mesoblast Lead Product MSC-100-IV/TEMCELL HS Inj
- Exhibit 14.32 MSC-100-IV Treatment in Children with SR-aGVHD who Failed Other Modalities
- Exhibit 14.33 MPC-300-IV for Treatment of Chronic Inflammatory Diseases
- Exhibit 14.34 Mesoblast International Strategic Business Collaborations
- Exhibit 14.35 Mesoblast Share Price and Financial Analysis
- Exhibit 14.36 Mesoblast Revenue Generated
- Exhibit 14.37 Mesoblast R&D Expenditure
- Exhibit 14.38 NuVasive Biologics Portfolio
- Exhibit 14.39 NuVasive Global Revenue
- Exhibit 14.40 NuVasive NON GAAP Operating Profit Margin
- Exhibit 14.41 NuVasive Spinal Surgery Product and Biologic Revenue Breakdown
- Exhibit 14.42 NuVasive USA and International Revenue Breakdown
- Exhibit 14.43 NuVasive Corporate Strategy Going Forward
- Exhibit 14.44 Osiris Therapeutics Current Product Portfolio
- Exhibit 14.45 Osiris Therapeutics Product Pipeline by Indication, Preclinical, Clinical and Market Stage
- Exhibit 14.46 Exhibit Plasticel Partnerships and Collaborations with Industry and Academic Institutions

- Exhibit 14.47 Pluristem Therapeutics Company Pipeline Portfolio by Product, Indication, Location & Phase
- Exhibit 14.48 Pluristem Therapeutics Production of PLX-PAD & PLX-R18
- Exhibit 14.49 Pluristem Therapeutics Revenue
- Exhibit 14.50 Pluristem Therapeutics R&D Costs
- Exhibit 14.51 Pfizer Stem Cell Policy
- Exhibit 14.52 StemCell Inc Manufacturing Steps of Hu-CNS-SC Product
- Exhibit 14.53 STEMCELL Technologies Product Portfolio
- Exhibit 14.54 STEMCELL Technologies Brand Portfolio
- Exhibit 14.55 Takara Bio Sales Revenue
- Exhibit 14.56 Takara Bio Operating Sales
- Exhibit 14.57 Takara Bio Industry Sales Revenue
- Exhibit 14.58 Takara Bio Sales by Geographic Region
- Exhibit 14.59 Tigenix Key Intellectual Property Patent Portfolio
- Exhibit 14.60 Comprehensive List of Companies in the Stem Cell & Regenerative Medicine Industry
- Exhibit 15.1 Advantages, Weaknesses, Opportunities & Threats of Allogenic & Autologous Stem Cells
- Exhibit 15.2 Opportunistic Therapeutic Indications as Decided by Senior Key Opinion Leaders

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