

Global 3D Cell culture Market Research and Forecast 2018-2023

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Abstracts

3D cell culture is one of the new evolving fields of research and technology in the market. It provides a 3D environment to the cells to grow in all directions, providing more accurate results than 2D procedures. The advancement and use of 3D cell cultures in drug discovery is becoming more prevalent. At the present time, a collaboration of academic laboratories and pharmaceutical/biotechnology companies in Europe has been established to develop new, more relevant, in vitro models for drug discovery practices. Various practices have been established for novel compound screening practices using 3D cell culture systems in cancer, particularly within the last few years. These procedures have included both non-adherent 3D cell cultures (anchorage-independent) and 3D structures which adhere to a substrate (anchorage-dependent).

Increasing research in 3D cell culture on stem cells and cell differentiation, significant contribution in the improvement of drug testing, increasing prevalence cancer across the globe and rapid increase in the need for organ transplantation will boost the 3D cell culture market in the future. Cancer research have progressed over the recent years, and a new dimension of research has been discovered by the advent of 3D cell culture techniques. With 3D cell culture techniques there have been significant advancements in which the cell lines can be utilized to carry out cancer research. Other factors that are contributing in the growth of 3D cell culture market includes cost-effective/time saving culture technique for drug screening and wide range of application in drug discovery and tissue engineering. However, there are some constraints in the growth of the market such as expensive tissue engineering using 3D cell culture and stringent regulation regarding 3D cell culture method. Investments done by pharmaceutical and biotechnology companies in 3D cell culture, initiatives undertaken by governments for implementing research and impending applications in cell-based biosensors are

expected to create enormous opportunities for the market in near future.

The global 3D cell culture market is segmented into methods, products, application and end user. On the basis of methods, the market is segmented into scaffold-based 3d cell culture method which include hydrogels and other (non-gel polymer) and scaffold-free cell culture method which include forced-floating method, hanging drop method and agitation-based method. On the basis of product type, the market is further bifurcated into scaffold-based 3D cell culture product, scaffold-free 3D cell culture product, microfluidics-based 3D cell culture and magnetic levitation & 3D bioprinting. Scaffold-based 3D cell culture is further segmented into hydrogels/ECM analogs, solid scaffolds and micropatterned surfaces whereas scaffold-free cell culture include low-adhesion microplates, hanging drop plates, 3D bioreactors and 3D petri dishes. On the basis of application, the market is segmented into toxicology, cancer and stem cell research, drug discovery and tissue engineering & regenerative medicine. Cancer research & stem cell technology holds the highest market share due to the increasing demand for stem cell and neural cell culture for stem cell biology, neuroscience and drug discovery research for cancer. On the basis of end user, the market is segmented into pharmaceutical & biotechnology companies, research institutes and other.

The global 3D cell culture market is further analyzed on the basis of the geographical regions that are contributing significantly in the growth of the market. In adaptation of 3D cell culture technologies, developed countries in North America and European Region are in the forefront, government funding opportunities in Cancer Research and disease screening has increased 3D cell culture technologies. The Asia-Pacific region with developing countries has a high growth potential for this emerging technology. North America holds a dominant position in the global 3D cell culture market, followed by Asia Pacific and Europe. This is mainly owing to the rapid growth in biotechnology and life science industry in the region. The U.S. and Canada are the leading countries that are primarily involved in the development of innovative drugs for the treatment of cancer across the globe. Asia Pacific is projected to exhibit the fastest growth in the global 3D cell culture market during the forecast period. The increasing interest of government and regulatory bodies towards stem cell research and development activities in the emerging economies such as India and China are some of the major factors contributing in the growth of the 3D cell culture market in Asia Pacific.

Companies that specialize in 3D cell culture technologies are emerging such as Organovo Holdings, Inc., MIMETAS, Cellspring, Corning Inc., 3D Biomatrix, Inc., 3D Biotek LLC, and Nano 3D Biosciences. In order to sustain in the competitive market, these players adopt various strategies such as acquisitions, mergers, expansions, joint

ventures and product development and so on. For instance, in 2016, Nano3D initiated a partnership with the Scripps Research Institute and Cold Springs Harbor Laboratory. It aims to advance high-throughput screening for cancer research and has been funded by the National Institute of Health (NIH) and sponsored by Greiner Bio-One North America.

RESEARCH METHODOLOGY

The market study of 3D cell culture market is incorporated by extensive primary and secondary research conducted by research team at OMR. Secondary research has been conducted to refine the available data to breakdown the market in various segments, derive total market size, market forecast and growth rate. Different approaches have been worked on to derive the market value and market growth rate. Our team collects facts and data related to the market from different geography to provide a better regional outlook. In the report country level analysis is provided by analyzing various regional players, regional tax laws and policies, consumer behavior and macro-economic factors. Numbers extracted from Secondary research have been authenticated by conducting proper primary research. It includes tracking down key people from the industry and interviewing them to validate the data. This enables our analyst to derive the closest possible figures without any major deviations in the actual number. Our analysts try to contact as many executives, managers, key opinion leaders and industry experts. Primary research brings the authenticity in our reports.

Secondary sources include:

Financial reports of companies involved in the market

Authentic Public Databases such as National Institute of Health, sciencecareers.org, nanohub.org, and National Cancer Institute.

Whitepapers, research-papers, and news blogs

Company websites and their product catalogue

Supplier Websites

The report is intended for healthcare companies, research institutes government & regulatory bodies, and end-use industries for overall market analysis and competitive analysis. The report provides in-depth analysis on pricing, market size, intended quality of the product preferred by consumers, initial norms and vehicle segment. The report will serve as a source for 360-degree analysis of the market thoroughly integrating

different models delivering insights into the market for better business decisions.

MARKET SEGMENTATION:

Global 3D cell culture market is segmented on the basis of regional outlook and following segments:

Global 3D Cell culture Market Research and Analysis, By method

Global 3D Cell culture Market Research and Analysis, By application

Global 3D Cell culture Market Research and Analysis, By Product Type

Global 3D Cell culture Market Research and Analysis, By End Users

Global 3D Cell culture Market Research and Analysis, By Region

THE REPORT COVERS:

Comprehensive research methodology of global 3D cell culture market

This report also includes detailed and extensive market overview with key analyst insights

Exhaustive analysis of macro and micro factors influencing the market guided by key recommendations

Analysis of regional regulations and other government policies impacting the global 3D cell culture market

Insights about market determinants which are stimulating the global 3D cell culture market

Detailed and extensive market segments with regional distribution of forecasted revenues

Extensive profiles and recent developments of market players

Contents

CHAPTER 1. REPORT SUMMARY

1.1. RESEARCH METHODS AND TOOLS

1.2. MARKET BREAKDOWN

1.2.1. BY SEGMENTS

1.2.2. BY GEOGRAPHY

1.2.3. BY STAKEHOLDERS

CHAPTER 2. MARKET OVERVIEW AND INSIGHTS

2.1. DEFINITION

2.2. ANALYST INSIGHT & CURRENT MARKET TRENDS

2.2.1. KEY FINDINGS

2.2.2. RECOMMENDATION

2.2.3. CONCLUSION

2.3. REGULATIONS

2.3.1.1. UNITED STATES

2.3.1.2. EUROPEAN UNION

2.3.1.3. CHINA

2.3.1.4. INDIA

CHAPTER 3. MARKET DETERMINANT

3.1. MOTIVATORS

3.1.1. INNOVATIVE FEATURES COMPARED TO CONVENTIONAL CELL CULTURE METHOD

3.1.2. SIGNIFICANT CONTRIBUTION IN THE IMPROVEMENT OF DRUG TESTING USING MICROFLUIDIC ORGAN-ON-CHIPS

3.1.3. COST-EFFECTIVE/TIME SAVING CULTURE TECHNIQUE FOR DRUG SCREENING

3.1.4. WIDE RANGE OF APPLICATION IN DRUG DISCOVERY AND TISSUE ENGINEERING

3.1.5. INCREASING PREVALENCE CANCER ACROSS THE GLOBE

3.1.6. INCREASE IN DEMAND FOR ORGAN TRANSPLANTATION

3.2. RESTRAINTS

3.2.1. TISSUE ENGINEERING CAN BE QUITE EXPENSIVE

3.2.2. REGULATIONS ARE NOT WELL DEFINED IN SOME COUNTRIES

3.3. OPPORTUNITIES

3.3.1. IMPENDING APPLICATIONS IN CELL-BASED BIOSENSORS

3.3.2. RISING FUNDING INITIATIVES FROM GOVERNMENT AND PRIVATE INVESTORS

CHAPTER 4. MARKET SEGMENTATION

4.1. GLOBAL 3D CELL CULTURE, BY METHODS

4.1.1. SCAFFOLD-BASED 3D CELL CULTURE METHOD

4.1.1.1. HYDROGELS

4.1.1.2. OTHER (NON-GEL POLYMER)

4.1.2. SCAFFOLD-FREE CELL CULTURE METHOD

4.1.2.1. FORCED-FLOATING METHOD

4.1.2.2. HANGING DROP METHOD

4.1.2.3. AGITATION BASED METHOD

4.2. GLOBAL 3D CELL CULTURE, BY PRODUCT TYPE

4.2.1. SCAFFOLD-BASED 3D CELL CULTURE

4.2.1.1. HYDROGELS/ECM ANALOGS

4.2.1.2. SOLID SCAFFOLDS

4.2.1.3. MICROPATTERNED SURFACES

4.2.2. SCAFFOLD-FREE 3D CELL CULTURE

4.2.2.1. LOW-ADHESION MICROPLATES

4.2.2.2. HANGING DROP PLATES

4.2.2.3. 3D BIOREACTORS

4.2.2.4. 3D PETRI DISHES

4.2.3. MICROFLUIDICS-BASED 3D CELL CULTURE

4.2.4. MAGNETIC LEVITATION & 3D BIOPRINTING

4.3. GLOBAL 3D CELL CULTURE, BY APPLICATION

4.3.1. CANCER AND STEM CELL RESEARCH

4.3.2. DRUG DISCOVERY

4.3.3. TOXICOLOGY

4.3.4. TISSUE ENGINEERING & REGENERATIVE MEDICINE

4.4. GLOBAL 3D CELL CULTURE, BY END USER

4.4.1. PHARMACEUTICAL & BIOTECHNOLOGY COMPANIES

4.4.2. RESEARCH INSTITUTES

4.4.3. OTHER

CHAPTER 5. COMPETITIVE LANDSCAPE

CHAPTER 6. REGIONAL ANALYSIS

6.1. NORTH AMERICAN

6.1.1. UNITED STATES

6.1.2. CANADA

6.2. EUROPE

6.2.1. U.K

6.2.2. GERMANY

6.2.3. ITALY

6.2.4. SPAIN

6.2.5. FRANCE

6.2.6. ROE

6.3. ASIA PACIFIC

6.3.1. INDIA

6.3.2. CHINA

6.3.3. JAPAN

6.3.4. ROAPAC

6.4. REST OF THE WORLD

CHAPTER 7. COMPANY PROFILES

7.1. 3D BIOMATRIX, INC.

7.2. 3D BIOTEK LLC

7.3. BECTON, DICKINSON AND COMPANY

7.4. BIOGELX LTD.

7.5. BIOSPHERIX, LTD.

7.6. CELLSPRING

7.7. CORNING INC.

7.8. CREATIVE-BIOLABS

7.9. GE HEALTHCARE

7.10. GLOBAL CELL SOLUTIONS INC.

7.11. INSPHERO AG

7.12. KIYATEC INC.

7.13. KURARAY EUROPE GMBH

7.14. LENA BIOSCIENCES, INC.

7.15. LONZA GROUP LTD.

7.16. MERCK KGAA,

7.17. MICROTISSUES INC.

7.18. MIMETAS

- 7.19. NANO 3D BIOSCIENCES
- 7.20. NOVIOCELL BV
- 7.21. ORGANOVO HOLDINGS, INC.
- 7.22. PROMOCELL GMBH
- 7.23. QGEL SA
- 7.24. REINNERVATE LTD.
- 7.25. REPROCELL INC.
- 7.26. SARTORIUS AG
- 7.27. SIGMA-ALDRICH CORP.
- 7.28. SYNTHECON INC.
- 7.29. THE ELECTROSPINNING COMPANY
- 7.30. THERMO FISHER SCIENTIFIC INC.
- 7.31. VWR INTERNATIONAL LLC
- 7.32. WHEATON INDUSTRIES INC.

List Of Tables

LIST OF TABLES

TABLE 1 GLOBAL 3D CELL CULTURE RESEARCH AND ANALYSIS BY METHODS, 2017-2023 (\$ MILLION)

TABLE 2 GLOBAL SCAFFOLD-BASED 3D CELL CULTURE METHOD MARKET RESEARCH AND ANALYSIS, 2017-2023 (\$ MILLION)

TABLE 3 GLOBAL SCAFFOLD-FREE CELL CULTURE METHOD MARKET RESEARCH AND ANALYSIS, 2017-2023 (\$ MILLION)

TABLE 4 GLOBAL 3D CELL CULTURE RESEARCH AND ANALYSIS BY PRODUCT TYPE, 2017-2023 (\$ MILLION)

TABLE 5 GLOBAL SCAFFOLD-BASED 3D CELL CULTURE MARKET RESEARCH AND ANALYSIS, 2017-2023 (\$ MILLION)

TABLE 6 GLOBAL SCAFFOLD-FREE 3D CELL CULTURE MARKET RESEARCH AND ANALYSIS, 2017-2023 (\$ MILLION)

TABLE 7 GLOBAL MICROFLUIDICS-BASED 3D CELL CULTURE MARKET RESEARCH AND ANALYSIS, 2017-2023 (\$ MILLION)

TABLE 8 GLOBAL MAGNETIC LEVITATION & 3D BIOPRINTING MARKET RESEARCH AND ANALYSIS, 2017-2023 (\$ MILLION)

TABLE 9 GLOBAL 3D CELL CULTURE RESEARCH AND ANALYSIS BY APPLICATION, 2017-2023 (\$ MILLION)

TABLE 10 GLOBAL CANCER AND STEM CELL RESEARCH MARKET RESEARCH AND ANALYSIS, 2017-2023 (\$ MILLION)

TABLE 11 GLOBAL DRUG DISCOVERY MARKET RESEARCH AND ANALYSIS, 2017-2023 (\$ MILLION)

TABLE 12 GLOBAL TOXICOLOGY MARKET RESEARCH AND ANALYSIS, 2017-2023 (\$ MILLION)

TABLE 13 GLOBAL TISSUE ENGINEERING & REGENERATIVE MEDICINE MARKET RESEARCH AND ANALYSIS, 2017-2023 (\$ MILLION)

TABLE 14 GLOBAL 3D CELL CULTURE RESEARCH AND ANALYSIS BY END USER, 2017-2023 (\$ MILLION)

TABLE 15 GLOBAL PHARMACEUTICAL & BIOTECHNOLOGY COMPANIES MARKET RESEARCH AND ANALYSIS, 2017-2023 (\$ MILLION)

TABLE 16 GLOBAL RESEARCH INSTITUTES MARKET RESEARCH AND ANALYSIS, 2017-2023 (\$ MILLION)

TABLE 17 GLOBAL OTHER MARKET RESEARCH AND ANALYSIS, 2017-2023 (\$ MILLION)

TABLE 18 GLOBAL 3D CELL CULTURE RESEARCH AND ANALYSIS BY

GEOGRAPHY, 2017-2023 (\$ MILLION)

TABLE 19 NORTH AMERICAN 3D CELL CULTURE RESEARCH AND ANALYSIS BY COUNTRY, 2017-2023 (\$ MILLION)

TABLE 20 NORTH AMERICAN 3D CELL CULTURE RESEARCH AND ANALYSIS BY METHOD, 2017-2023 (\$ MILLION)

TABLE 21 NORTH AMERICAN 3D CELL CULTURE RESEARCH AND ANALYSIS BY APPLICATION, 2017-2023 (\$ MILLION)

TABLE 22 NORTH AMERICAN 3D CELL CULTURE RESEARCH AND ANALYSIS BY PRODUCT TYPE, 2017-2023 (\$ MILLION)

TABLE 23 NORTH AMERICAN 3D CELL CULTURE RESEARCH AND ANALYSIS BY END USER, 2017-2023 (\$ MILLION)

TABLE 24 EUROPEAN 3D CELL CULTURE RESEARCH AND ANALYSIS BY COUNTRY, 2017-2023 (\$ MILLION)

TABLE 25 EUROPEAN 3D CELL CULTURE RESEARCH AND ANALYSIS BY METHOD, 2017-2023 (\$ MILLION)

TABLE 26 EUROPEAN 3D CELL CULTURE RESEARCH AND ANALYSIS BY APPLICATION, 2017-2023 (\$ MILLION)

TABLE 27 EUROPEAN 3D CELL CULTURE RESEARCH AND ANALYSIS BY PRODUCT TYPE, 2017-2023 (\$ MILLION)

TABLE 28 EUROPEAN 3D CELL CULTURE RESEARCH AND ANALYSIS BY END USER, 2017-2023 (\$ MILLION)

TABLE 29 APAC 3D CELL CULTURE RESEARCH AND ANALYSIS BY COUNTRY, 2017-2023 (\$ MILLION)

TABLE 30 APAC 3D CELL CULTURE RESEARCH AND ANALYSIS BY METHOD, 2017-2023 (\$ MILLION)

TABLE 31 APAC 3D CELL CULTURE RESEARCH AND ANALYSIS BY APPLICATION, 2017-2023 (\$ MILLION)

TABLE 32 APAC 3D CELL CULTURE RESEARCH AND ANALYSIS BY PRODUCT TYPE, 2017-2023 (\$ MILLION)

TABLE 33 APAC 3D CELL CULTURE RESEARCH AND ANALYSIS BY END USER, 2017-2023 (\$ MILLION)

TABLE 34 ROW 3D CELL CULTURE RESEARCH AND ANALYSIS BY METHOD, 2017-2023 (\$ MILLION)

TABLE 35 ROW 3D CELL CULTURE RESEARCH AND ANALYSIS BY APPLICATION, 2017-2023 (\$ MILLION)

TABLE 36 ROW 3D CELL CULTURE RESEARCH AND ANALYSIS BY PRODUCT TYPE, 2017-2023 (\$ MILLION)

TABLE 37 ROW 3D CELL CULTURE RESEARCH AND ANALYSIS BY END USER, 2017-2023 (\$ MILLION)

List Of Figures

LIST OF FIGURES

FIGURE 1 GLOBAL 3D CELL CULTURE SHARE BY METHOD, 2017 VS 2023 (%)

FIGURE 2 GLOBAL 3D CELL CULTURE SHARE BY APPLICATION, 2017 VS 2023 (%)

FIGURE 3 GLOBAL 3D CELL CULTURE SHARE BY PRODUCT TYPE, 2017 VS 2023 (%)

FIGURE 4 GLOBAL 3D CELL CULTURE SHARE BY END USER, 2017 VS 2023 (%)

FIGURE 5 US 3D CELL CULTURE SIZE, 2017-2023 (\$ MILLION)

FIGURE 6 CANADA 3D CELL CULTURE SIZE, 2017-2023 (\$ MILLION)

FIGURE 7 UK 3D CELL CULTURE SIZE, 2017-2023 (\$ MILLION)

FIGURE 8 FRANCE 3D CELL CULTURE SIZE, 2017-2023 (\$ MILLION)

FIGURE 9 GERMANY 3D CELL CULTURE SIZE, 2017-2023 (\$ MILLION)

FIGURE 10 ITALY 3D CELL CULTURE SIZE, 2017-2023 (\$ MILLION)

FIGURE 11 SPAIN 3D CELL CULTURE SIZE, 2017-2023 (\$ MILLION)

FIGURE 12 ROE 3D CELL CULTURE SIZE, 2017-2023 (\$ MILLION)

FIGURE 13 INDIA 3D CELL CULTURE SIZE, 2017-2023 (\$ MILLION)

FIGURE 14 CHINA 3D CELL CULTURE SIZE, 2017-2023 (\$ MILLION)

FIGURE 15 JAPAN 3D CELL CULTURE SIZE, 2017-2023 (\$ MILLION)

FIGURE 16 ROAPAC 3D CELL CULTURE SIZE, 2017-2023 (\$ MILLION)

FIGURE 17 REST OF THE WORLD 3D CELL CULTURE SIZE, 2017-2023 (\$ MILLION)

COMPANIES MENTIONED

1. 3D BIOMATRIX, INC.
2. 3D BIOTEK LLC
3. BECTON, DICKINSON AND COMPANY
4. BIOGELX LTD.
5. BIOSPHERIX, LTD.
6. CELLSPRING
7. CORNING INC.
8. CREATIVE-BIOLABS
9. GE HEALTHCARE
10. GLOBAL CELL SOLUTIONS INC.
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14. LENA BIOSCIENCES, INC.
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24. REINNERVATE LTD.
25. REPROCELL INC.
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