

Global TCR Therapy Market (2nd Edition), 2022-2035: Distribution by Target Indication (Nasopharyngeal Carcinoma, Multiple Myeloma, Head and Neck Carcinoma, Sarcoma, Melanoma, Acute Myeloid Leukemia, Lung Cancer, Ovarian Cancer, and Merkel Cell Cancer), Target Antigen (NY-ESO-1, EBV, gp100, and others), Key Players and Key Geographies (North America, Europe, Asia Pacific, Latin America, Middle East and North Africa, and Rest of the World): Industry Trends and Global Forecasts, 2022-2035

<https://marketpublishers.com/r/G7E9892E08E9EN.html>

Date: January 2023

Pages: 363

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

ID: G7E9892E08E9EN

Abstracts

The TCR therapy market is expected to reach USD 0.03 billion in 2023 anticipated to grow at a CAGR of 51% during the forecast period 2023-2035.

T-cell receptor (TCR) based therapy is a burgeoning area within adoptive cell therapy. It involves the manipulation of lymphocytes through genetic modifications to target specific tumor markers. The effectiveness of these therapies in eliminating tumor cells primarily relies on their previous sensitization to cancer-specific antigens. This attribute enables these interventions to selectively locate and eliminate tumor cells in the body while mitigating potential side effects associated with treatment. The growing interest in this field is driven by promising results observed in previous trials, particularly focused on various hematological cancers and solid tumors. This momentum is further fueled by significant financial support from investors and the optimistic trends in clinical trial outcomes. As a result, the market for T-cell receptor therapy is expected to witness substantial growth in the forecasted period.

Report Coverage

An executive summary of the insights captured in our research. It offers a high-level view on the likely evolution of the TCR-based therapy market in the short to mid-term and long term.

A general overview of TCR-based therapies. In this section, we have briefly discussed the conventional forms of therapy that are being used for the treatment of various oncological indications. Further, it includes a discussion on the advent and historical evolution of cancer immunotherapy, general manufacturing procedure of T-cell immunotherapies, and key attributes in development of TCR-based therapies.

Detailed assessment of the current market landscape of more than 190 TCR-based therapies that are currently approved or are in different stages of the development. It features a comprehensive analysis of pipeline molecules with respect to the type of developer (industry / non-industry), phase of development (approved, phase II, phase I / II, phase I, and preclinical), therapeutic area (hematological cancer, solid tumor, and undisclosed), key target indication (lung cancer, melanoma, hepatocellular carcinoma, cervical cancer, ovarian cancer, sarcoma, breast cancer, gastric cancer, multiple myeloma, pancreatic cancer, acute myeloid leukemia, myelodysplastic syndrome, nasopharyngeal carcinoma, and others), key target antigen (NY-ESO-1, MAGE, HBV, PRAME, KRAS, EBV, HPV, Neoantigen, LAGE-1a, Meso, HLA, and others), source of T-cells (autologous / allogeneic), route of administration (intravenous and intratumoral), dose frequency (single dose, multiple dose, and split dose), target patient segment (children, adults and elderly patients), type of therapy (monotherapy and combination therapy). Additionally, it highlights the most active industry and non-industry players (in terms of number of pipeline candidates) engaged in development of TCR-based therapies. Further, chapter also includes developer landscape analysis based on some relevant parameters, including year of establishment, company size (small, mid-sized, and large) and location of headquarters (North America, Europe, and Asia Pacific).

A comprehensive target antigen analysis, highlighting the most popular target antigens related to hematological malignancies and solid tumors, based on the number of TCR-based therapies that are being developed for a particular type of antigen by various industry stakeholders to identify potential targets.

A detailed analysis of completed, ongoing, and planned clinical studies related to TCR-based therapies, based on several relevant parameters, such as trial registration year, enrolled patient population, trial recruitment status, trial phase, target patient segment, type of sponsor / collaborator, most active players (in terms of number of registered trials), and geography.

An analysis highlighting the key opinion leaders (KOLs) in this domain, featuring an analysis of the various principal investigators of clinical trials related to TCR-based therapies, considering them to be KOLs, who are actively involved in R&D of TCR-based therapies. In addition, it compares the relative expertise of KOLs based on a proprietary scoring criterion with that of a third party.

Detailed profiles of marketed and mid to late stage TCR-based therapies (phase I/II or above). Each profile features an overview of the therapy, its mechanism of action, dosage information, details on the cost and sales information (wherever available), clinical development plan, and key clinical trial results.

An analysis of the recent partnerships inked between several stakeholders engaged in this domain, covering R&D agreements, license agreements (specific to technology platforms and product candidates), product development and commercialization agreements, manufacturing agreements, clinical trial collaborations, product supply management agreements, joint ventures, and others, companies involved, type of therapy, prominent product candidates involved and regional distribution of the collaborations.

Details on the various funding and investments that have been made into companies having proprietary TCR-based products / technologies, including seed financing, venture capital financing, capital raised from IPOs and subsequent offerings, grants, and debt financing. It includes a detailed analysis of the funding instances that have taken place in the period between 2005 to 2022, highlighting the growing interest of venture capital (VC) community and other strategic investors in this domain.

An in-depth analysis of patents related to TCR-based therapies, filed / granted till 2022, based on several relevant parameters, such as type of patent (granted, patent applications, and search reports), patent publication year, geographical distribution, Cooperative Patent Classification (CPC) symbols, emerging focus area, type of player, leading player (in terms of number of patents), and patent

benchmarking. In addition, it features a patent valuation analysis, which evaluates the qualitative and quantitative aspects of the patents.

Case study on cell therapy manufacturing, highlighting the current challenges that exist in this domain, and the pre-requisites for owning and maintaining cell therapy manufacturing sites. Additionally, it includes a detailed list of various cell therapy manufacturers, covering both contract manufacturing organizations and companies with in-house manufacturing capabilities. For the players mentioned in the chapter, we have included details on location of various manufacturing facilities, the products being manufactured, scale of operation and compliance to cGMP standards.

Views on the various factors that must be taken into consideration while deciding the prices of cell-based therapies. It features discussions on different models / approaches that a pharmaceutical company may choose to follow to decide the price at which their TCR-based therapy product can be marketed. Additionally, we have provided a brief overview of the reimbursement consideration for TCR-based therapies.

An elaborate discussion on the future commercial opportunity offered by TCR-based therapies. It provides a comprehensive market forecast analysis for TCR-based products that are approved or are in phase I/II and phase II of development, taking into consideration the target patient population, existing / future competition, likely adoption rates and the likely price of different therapies. The chapter also presents a detailed market segmentation, based on target indication (nasopharyngeal carcinoma, multiple myeloma, head and neck carcinoma, sarcoma, melanoma, acute myeloid leukemia, lung cancer, ovarian cancer and merkel cell cancer), target antigen (NY-ESO-1, EBV, gp100 and others), key players, and key geographical regions (North America, Europe, Asia Pacific, Latin America, Middle East and North Africa, and Rest of the World).

Key Market Companies

Adaptimmune Therapeutics

Alaunos Therapeutics

Bristol Myers Squibb

Cellular Biomedicine

Gilead Biosciences

GlaxoSmithKline

Immatics

Immunocore

Lion TCR

Takara Bio

Zelluna Immunotherapy

Contents

1. PREFACE

- 1.1. Chapter Overview
- 1.2. Market Segmentations
- 1.3. Research Methodology
- 1.4. Key Questions Answered
- 1.5. Chapter Outlines

2. EXECUTIVE SUMMARY

3. INTRODUCTION

- 3.1. Chapter Overview
- 3.2. Pillars of Cancer Therapy
- 3.3. Overview of Immunotherapies
- 3.4. Fundamentals of Cancer Immunotherapy
- 3.5. Classification of Cancer Immunotherapies
 - 3.5.1. By Mechanism of Action
 - 3.5.1.1. Active Immunotherapy
 - 3.5.1.2. Passive Immunotherapy
 - 3.5.2. By Type of Target
 - 3.5.3. By Approach
 - 3.5.3.1. Activation and Suppression Immunotherapy
 - 3.5.4. By Product Class
 - 3.5.4.1. Monoclonal Antibodies
 - 3.5.4.2. Bispecific Antibodies
 - 3.5.4.3. Cytokines
 - 3.5.4.4. Oncolytic Virus Therapy
 - 3.5.4.5. Therapeutic Cancer Vaccines
 - 3.5.4.6. Cell-based Therapies
- 3.6. T Cell Immunotherapies
 - 3.6.1. Historical Evolution
 - 3.6.2. Key Considerations for Developing T Cell Immunotherapies
 - 3.6.3. Strategies Employed for the Redirection of T-Cells
 - 3.6.4. Manufacturing of Engineered T Cells
 - 3.6.5. T-Cell Transduction and Transfection Methods
 - 3.6.5.1. Retroviral Vectors

- 3.6.5.2. Lentiviral Vectors
- 3.6.5.3. Non-viral Transfection Methods
- 3.7. T-Cell Receptor (TCR)-based Cell Therapy
 - 3.7.1. Development History
 - 3.7.2. Anatomical Layout of TCR
 - 3.7.3. Development of TCR Therapy
 - 3.7.4. Differences between CAR-T and TCR Therapies
- 3.8. Concluding Remarks

4. TCR THERAPIES: MARKET LANDSCAPE

- 4.1. Chapter Overview
- 4.2. TCR Therapies: Overall Market Landscape
 - 4.2.1. Analysis by Type of Developer
 - 4.2.2. Analysis by Phase of Development
 - 4.2.3. Analysis by Therapeutic Area
 - 4.2.4. Analysis by Phase of Development and Therapeutic Area
 - 4.2.5. Analysis by Key Target Indication
 - 4.2.6. Analysis by Key Target Antigen
 - 4.2.7. Analysis by Source of T-Cells
 - 4.2.8. Analysis by Route of Administration
 - 4.2.9. Analysis by Phase of Development and Route of Administration
 - 4.2.10. Analysis by Dosing Frequency
 - 4.2.11. Analysis by Target Patient Segment
 - 4.2.12. Analysis by Type of Therapy
 - 4.2.13. Analysis by Phase of Development and Type of Therapy
 - 4.2.14. Most Active Industry Players: Analysis by Number of TCR Therapies
 - 4.2.15. Most Active Non-Industry Players: Analysis by Number of TCR Therapies
- 4.3. TCR Therapies: Overall Developer Landscape
 - 4.3.1. Analysis by Year of Establishment
 - 4.3.2. Analysis by Company Size
 - 4.3.3. Analysis by Location of Headquarters

5. POPULAR TARGET ANTIGEN ANALYSIS

- 5.1. Chapter Overview
- 5.2. Competitive Analysis: Popular Target Antigens of TCR Therapies
 - 5.2.1. Popular Targets Related to Hematological Malignancies
 - 5.2.2. Popular Targets Related to Solid Tumors

6. CLINICAL TRIAL ANALYSIS

6.1. Chapter Overview

6.2. Scope and Methodology

6.3. TCR Therapies: Clinical Trial Analysis

6.3.1. Analysis by Trial Registration Year

6.3.2. Analysis by Trial Registration Year and Enrolled Patient Population

6.3.3. Analysis by Trial Status

6.3.4. Analysis by Trial Registration Year and Trial Status

6.3.5. Analysis by Trial Phase

6.3.6. Analysis of Enrolled Patient Population by Trial Phase

6.3.7. Analysis by Target Patient Segment

6.3.8. Analysis by Type of Sponsor / Collaborator

6.3.9. Analysis by Study Design

6.3.10. Most Active Industry Players: Analysis by Number of Registered Trials

6.3.11. Most Active Non-Industry Players: Analysis by Number of Registered Trials

6.3.12. Word Cloud Representation Analysis: Emerging Focus Areas

6.3.13. Analysis of Clinical Trials by Geography

6.3.14. Analysis of Enrolled Patient Population by Geography

7. KEY OPINION LEADERS

7.1. Chapter Overview

7.2. Assumptions and Key Parameters

7.3. Methodology

7.4. TCR Therapies: Key Opinion Leaders

7.4.1. Analysis by Type of Organization

7.4.2. Analysis by Affiliated Organization

7.4.3. Analysis by Qualification

7.4.4. Analysis by Geographical Location of KOLs

7.4.5. KOL Activeness versus KOL Strength

7.4.6. Most Prominent KOLs: Analysis by RA score

7.4.7. Most Prominent KOLs: Comparison of RA Score and Third-Party Score

8. T CELL RECEPTOR THERAPY PROFILES

8.1. Chapter Overview

8.2. Kimmtrak® / IMCgp100 / Tebentafusp (Immunocore)

- 8.2.1. Therapy Overview
- 8.2.2. Clinical Trial Information
- 8.2.3. Clinical Trial Endpoints
- 8.2.4. Clinical Trial Results
- 8.2.5. Estimated Sales Revenues
- 8.3. GSK3377794 / NY-ESO-1C259 T-cells / Letetresgene Autoleucel (GlaxoSmithKline)
 - 8.3.1. Therapy Overview
 - 8.3.2. Clinical Trial Information
 - 8.3.3. Clinical Trial Endpoints
 - 8.3.4. Clinical Trial Results
 - 8.3.5. Estimated Sales Revenues
- 8.4. ADP-A2M4 / Afamitresgene Autoleucel / Afami-cel (Adaptimmune Therapeutics)
 - 8.4.1. Therapy Overview
 - 8.4.2. Clinical Trial Information
 - 8.4.3. Clinical Trial Endpoints
 - 8.4.4. Clinical Trial Results
 - 8.4.5. Estimated Sales Revenues
- 8.5. JTCR016 (Juno Therapeutics)
 - 8.5.1. Therapy Overview
 - 8.5.2. Clinical Trial Information
 - 8.5.3. Clinical Trial Endpoints
- 8.6. TBI-1301 (Takara Bio)
 - 8.6.1. Therapy Overview
 - 8.6.2. Clinical Trial Information
 - 8.6.3. Clinical Trial Endpoints
 - 8.6.4. Clinical Trial Results
 - 8.6.5. Estimated Sales Revenues
- 8.7. MDG1011 (Medigene)
 - 8.7.1. Therapy Overview
 - 8.7.2. Clinical Trial Information
 - 8.7.3. Clinical Trial Endpoints
 - 8.7.4. Clinical Trial Results

9. PARTNERSHIPS AND COLLABORATIONS

- 9.1. Chapter Overview
- 9.2. Partnership Models
- 9.3. TCR Therapies: Partnerships and Collaborations

- 9.3.1. Analysis by Year of Partnership
- 9.3.2. Analysis by Type of Partnership
- 9.3.3. Analysis by Year of Partnership and Type of Partnership
- 9.3.4. Analysis by Type of Partner
- 9.3.5. Most Popular Products: Analysis by Number of Partnerships
- 9.3.6. Most Active Industry Players: Analysis by Number of Partnerships
- 9.3.7. Most Active Non-Industry Players: Analysis by Number of Partnerships
- 9.3.8. Analysis by Geography
 - 9.3.8.1. Intercontinental and Intracontinental Deals
 - 9.3.8.2. International and Local Deals

10 FUNDING AND INVESTMENT ANALYSIS

- 10.1. Chapter Overview
- 10.2. Types of Funding
- 10.3. TCR Therapies: Funding and Investment Analysis
 - 10.3.1. Analysis of Instances by Year
 - 10.3.2. Analysis of Amount Invested by Year
 - 10.3.3. Analysis by Type of Funding
 - 10.3.4. Analysis by Type of Investor
 - 10.3.5. Most Active Players: Analysis by Number of Instances
 - 10.3.6. Most Active Investors: Analysis by Amount Invested
 - 10.3.7. Analysis of Amount Invested by Geography
 - 10.3.8. Most Active Investors: Analysis by Number of Funding Instances

11. PATENT ANALYSIS

- 11.1. Chapter Overview
- 11.2. Scope and Methodology
- 11.3. TCR Therapies: Patent Analysis
 - 11.3.1. Analysis by Patent Publication Year
 - 11.3.2. Analysis By Patent Application Year
 - 11.3.3. Analysis by Geography
 - 11.3.4. Analysis by Type of Player
 - 11.3.5. Analysis by CPC Symbols
 - 11.3.6. Analysis by Key Focus Area
 - 11.3.7. Leading Player: Analysis by Number of Patents
 - 11.3.8. TCR Therapies: Patent Benchmarking
 - 11.3.9. Analysis By Patent Characteristics

11.3.10. TCR Therapies: Patent Valuation

12. CASE STUDY: CELL THERAPY MANUFACTURING

12.1. Chapter Overview

12.2. Overview of Cell Therapy Manufacturing

12.3. Cell Therapy Manufacturing Models

12.3.1. Centralized Manufacturing Model

12.3.2. Decentralized Manufacturing Model

12.4. Scalability of Cell Therapy Manufacturing Processes

12.4.1. Scale-Up

12.4.2. Scale-Out

12.5. Types of Cell Therapy Manufacturers

12.6. Key Challenges Related to Manufacturing of Cell Therapies

12.7. Important Factors for Cell Therapy Manufacturing

12.7.1. Characterization

12.7.2. Cost of Goods

12.8. Automation of Cell Therapy Manufacturing Processes

12.9. Cell Therapy Manufacturing Supply Chain

12.10. Comparison of Player Having In-House Capabilities and Contract Manufacturers

12.11. Regulatory Landscape

12.12. Future Perspectives

13. COST PRICE ANALYSIS

13.1. Chapter Overview

13.2. Factors Contributing to the High Price of Cell / Gene Therapies

13.3. Pricing Models for T-Cell Immunotherapies

13.3.1. Based on Associated Costs

13.3.2. Based on Availability of Competing Products

13.3.3. Based on Patient Segment

13.3.4. Based on Opinions of Industry Experts

13.4. Reimbursement related Considerations for T-cell Immunotherapies

13.4.1. Case Study: The National Institute for Health and Care Excellence (NICE)
Appraisal of CAR-T Therapies

14. MARKET FORECAST AND OPPORTUNITY ANALYSIS

14.1. Chapter Overview

14.2. Scope and Limitations

14.3. Key Assumptions and Forecast Methodology

14.4. Global TCR Therapy Market, 2022-2035

14.4.1. TCR Therapy Market: Analysis by Target Indication

14.4.2. TCR Therapy Market: Analysis by Target Antigen

14.4.3. TCR Therapy Market: Analysis by Key Players

14.4.4. TCR Therapy Market: Distribution by Geography

14.4.5. Product Wise Sales Forecast

14.4.5.1. Kimmtrak® (IMCgp100 / Tebentafusp) (Immunocore)

14.4.5.1.1. Sales Forecast (USD Million)

14.4.5.1.2. Net Present Value (USD Million)

14.4.5.1.3. Value Creation Analysis

14.4.5.2. GSK3377794 (GlaxoSmithKline)

14.4.5.2.1. Sales Forecast (USD Million)

14.4.5.2.2. Net Present Value (USD Million)

14.4.5.2.3. Value Creation Analysis

14.4.5.3. YT-E001 (China Immunotech)

14.4.5.3.1. Sales Forecast (USD Million)

14.4.5.3.2. Net Present Value (USD Million)

14.4.5.3.3. Value Creation Analysis

14.4.5.4. ADP-A2M4 / Afamitresgene Autoleucel / Afami-cel (Adaptimmune Therapeutics)

14.4.5.4.1. Sales Forecast (USD Million)

14.4.5.4.2. Net Present Value (USD Million)

14.4.5.4.3. Value Creation Analysis

14.4.5.5. EBV-specific TCR-T cell with Anti-PD1 Aauto-secreted Element (TCRCure Biopharma)

14.4.5.5.1. Sales Forecast (USD Million)

14.4.5.5.2. Net Present Value (USD Million)

14.4.5.5.3. Value Creation Analysis

14.4.5.6. NTLA-5001 (Intellia Therapeutics)

14.4.5.6.1. Sales Forecast (USD Million)

14.4.5.6.2. Net Present Value (USD Million)

14.4.5.6.3. Value Creation Analysis

14.4.5.7. TBI-1301 (Takara Bio)

14.4.5.7.1. Sales Forecast (USD Million)

14.4.5.7.2. Net Present Value (USD Million)

14.4.5.7.3. Value Creation Analysis

14.4.5.8. LMBP2-specific TCR-T (Xinqiao Hospital of Chongqing / TCR CURE

Biopharma Technology)

14.4.5.8.1. Sales Forecast (USD Million)

14.4.5.8.2. Net Present Value (USD Million)

14.4.5.8.3. Value Creation Analysis

14.4.5.9. FH-MCVA2TCR (TCRCure Biopharma)

14.4.5.9.1. Sales Forecast (USD Million)

14.4.5.9.2. Net Present Value (USD Million)

14.4.5.9.3. Value Creation Analysis

15. PROMOTIONAL ANALYSIS

15.1. Chapter Overview

15.2. Channels Used for Promotional Campaigns

15.3. Kimmtrak: Promotional Analysis

15.3.1. Drug Overview

15.3.2. Product Website Analysis

15.3.2.1. Message for Healthcare Professionals

15.3.2.2. Message for Patients

15.3.2.3. Informative Downloads

15.3.3. Patient Support Services

16. COMPANY PROFILES

16.1. Chapter Overview

16.2. Adaptimmune Therapeutics

16.3. AlauNos Therapeutics

16.4. Company Profiles

16.5. Bristol Myers Squibb

16.6. Cellular Biomedicine Group

16.7. Gilead Sciences

16.8. Cellular Biomedicine Group

16.9. GlaxoSmithKline

16.10. Immatix

16.11. Immunocore

16.12. Lion TCR

16.13. Takara Bio

16.14. Zelluna immunotherapy

17. CONCLUDING REMARKS

18. EXECUTIVE INSIGHTS

18.1. Chapter Overview

18.2. Celyad

18.2.1. Interview Transcript: Vincent Brichard, Vice President, Immuno-Oncology

18.3. Kite Pharma

18.3.1. Interview Transcript: Adrian Bot, Vice President, Scientific Affairs

18.4. Lion TCR

18.4.1. Interview Transcript: Victor Lietao Li, Co-Founder and Chief Executive Officer

18.5. TxCell

18.5.1. Interview Transcript: Miguel Forte, Chief Operating Officer

19. APPENDIX 1: TABULATED DATA

20. APPENDIX 2: LIST OF COMPANIES AND ORGANIZATIONS

I would like to order

Product name: Global TCR Therapy Market (2nd Edition), 2022-2035: Distribution by Target Indication (Nasopharyngeal Carcinoma, Multiple Myeloma, Head and Neck Carcinoma, Sarcoma, Melanoma, Acute Myeloid Leukemia, Lung Cancer, Ovarian Cancer, and Merkel Cell Cancer), Target Antigen (NY-ESO-1, EBV, gp100, and others), Key Players and Key Geographies (North America, Europe, Asia Pacific, Latin America, Middle East and North Africa, and Rest of the World): Industry Trends and Global Forecasts, 2022-2035

Product link: <https://marketpublishers.com/r/G7E9892E08E9EN.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

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/G7E9892E08E9EN.html>

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

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

****All fields are required**

Customer signature _____

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms

& Conditions at <https://marketpublishers.com/docs/terms.html>

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