

Induced Pluripotent Stem Cells: Global Markets

Market Research Report | 2024-11-07 | 152 pages | BCC Research

AVAILABLE LICENSES:

- Single User License \$4650.00
- 2-5 Users License \$5580.00
- Site License \$6696.00
- Enterprise License \$8035.00

Report description:

Description

Report Scope

The scope of this study encompasses an investigation of the market. BCC Research analyzes this market based on application type, product function, generation of iPSC and types of iPSC derived cells and species. Application-based market segments include drug development and toxicity testing, academic research and regenerative medicine. Product function-based market segments include molecular and cellular engineering, cellular reprogramming, cell culture, cell differentiation and cell analysis. iPSC-derived cell-type-based market segments include hepatocytes, neurons, cardiomyocytes, endothelial cells and other cell types. Other cell types include astrocytes, fibroblasts and hematopoietic progenitor cells. BCC Research determines the current market status in each segment, examines its impact on future needs and presents growth forecasts through 2028.

The report also provides a detailed analysis of the market's drivers, restraints, challenges and opportunities. In addition, the report includes the company profiles of the key players with detailed information about their business segments, financials, product portfolios and recent developments. It also provides detailed information on this market, emerging technologies and new developments, regulatory landscape, patent analysis, pipeline analysis and investment outlook and deals.

Report Includes

- 28 data tables and 56 additional tables
- An analysis of the global market for induced pluripotent stem cells (iPSCs) or artificial stem cells
- Analyses of global market trends, with market revenue data from 2020 to 2023, and projected CAGRs through 2028
- Estimate of the size and revenue prospects of the global market, along with a market share analysis by reprogramming method, generation method, application, product function, iPSC-derived cell type, species, end use, and region
- Facts and figures pertaining to the market dynamics, technological advances, regulations, and the macroeconomic factors that influence the industry
- A Porter's Five Forces model, as well as global supply chain and PESTLE analyses
- Insights into iPSC research activity, emerging technologies, clinical trials and pipeline products

- Patent activity and analysis of recent patent grants/publications
- Overview of sustainability trends and ESG developments, with emphasis on consumer attitudes, ESG score analysis, and the ESG practices of leading companies
- Analysis of the industry structure, including company market shares, strategic alliances, M&A activity and a venture funding outlook
- Profiles of market leaders, including Fujifilm Cellular Dynamics (FCDI) Inc., Axol Bioscience Ltd., Merck KGaA, Thermo Fisher Scientific Inc., and Takara Bio Inc.

Executive Summary

Summary:

Induced pluripotent stem cells (iPSCs) are artificial stem cells generated from somatic cells through the simultaneous expression of specific factors associated with pluripotency. The discovery of human iPSCs (hiPSCs) and their capacity to differentiate into various cell types of the body has led to significant scientific interest and enthusiasm. In contrast to embryonic stem cells, iPSCs offer an added advantage of being easily derived from human samples without any ethical concerns.

The rapid evolution of human iPSC technology since 2007 led to an exciting new age for the fields of disease modeling, drug discovery, stem cell biology and regenerative medicine. Human iPSCs were rapidly applied to create human "disease-in-a-dish" models and for drug screening to check for potential toxicities as well as efficacy shortly after the technology was developed. With the rise in interest in phenotypic screening and the benefits of using human iPSCs for disease modeling over conventional cellular screens, these methods are currently gaining traction. These benefits include their human origin, ease of use, expandability, capacity to generate nearly any type of cell wanted, avoidance of the moral dilemmas surrounding human embryonic stem cells (ESCs) and the possibility of employing patientspecific iPSCs to create personalized therapeutics. The creation of genetically specified human iPSCbased disease models is becoming easier with current developments in gene-editing tools, particularly CRISPR/Cas9. Additionally, iPSCs play a significant role in a new generation of cellular platforms that are more physiologically similar and have several cell types and three-dimensional (3D) designs.

However, there are certain challenges associated with the use of iPSCs, including issues with clonal selection, in vitro culture, adaptability, and/or cell multiplication. Thus, even though the field of iPSCs has come a long way, there are still many issues that need to be seriously addressed to transform hope to reality regarding the effective clinical application of these cells in regenerative medicine.

The iPSC market was valued at \$3.1 billion in 2022 and is forecasted to grow at a CAGR of 9.1% to reach a value of \$5.2 billion by end of 2028.

Table of Contents:

Table of Contents
Chapter 1 Executive Summary
Market Outlook
Scope of Report
Market Summary
Chapter 2 Market Overview
Introduction
Induced Pluripotent Stem Cells (iPSC) Generation
Chapter 3 Market Dynamics
Global Market Dynamics

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

Market Drivers

Increasing Prevalence of Chronic Diseases
Increasing Investment in Biotechnology Industry
Increasing Demand for Personalized Medicines
Increasing Investments for Drug Research and Development
Demand for Effective Drug Discovery and Development Process
Minimizing Animal Testing

Market Restraints

High Development Costs and Lack of Skilled Workforce
Challenges Associated with iPSC-based Disease Modeling, Cell Therapy and Drug Discovery

Market Opportunities

Technological Advances
Growth in iPSC Banking
Chapter 4 Emerging Technologies and Developments
Advances in the iPSC Research
Reprogramming Technologies
Gene Editing Technologies

3D Organoids

Regenerative Medicine

Evolution and Current Application of Artificial Intelligence (AI) in iPSC Research

Chapter 5 Clinical Trial Analysis

Clinical Trials

Chapter 6 Patent Analysis

Patent Analysis

Chapter 7 Market Segmentation Analysis

Segmentation Breakdown

Overview

Generation of Induced Pluripotent Stem Cells -- Market Analysis, by Reprogramming Method

Market for Induced Pluripotent Stem Cells, by Generation Method

Market for Induced Pluripotent Stem Cells, by Application

Academic Research

Pharmaco-toxicological Screening

Drug Discovery and Development

Disease Modeling

Tissue Engineering

Cell Therapy

Global Market

Regional Markets for iPSCs, by Application

iPSC-derived Tissue Cell Market, by Type

Cardiomyocytes

Neurons

Endothelial Cells

Hepatocytes

Other Cells

iPSC-derived Tissue Cell Market, by Species

Global Market

iPSC-derived Tissue Cell Market, by Application

Global Market

Market for Induced Pluripotent Stem Cells, by Product Function

Global Market

Regional Markets for iPSCs, by Product Function

Market for Induced Pluripotent Stem Cells, by End Use

Induced Pluripotent Stem Cell Contract Service Types

Major Players

Global Market

Geographic Breakdown

Market for Induced Pluripotent Stem Cells, by Region

The U.S.

Europe

Asia-Pacific

Rest of the World

Chapter 8 Competitive Intelligence

Competitive Landscape -- Overview

Strategic Analysis

Agreements

Collaborations & Strategic Alliances

Partnerships

New Product Development and Launches

Expansions and Acquisitions

Fund Raising

Approval and Clinical Trials

Others

Major Companies in Induced Pluripotent Stem Cells Market, by Type of Offerings

Chapter 9 Appendix

Methodology

Abbreviations

Sources

Company Profiles

ATCC

AXOL BIOSCIENCE LTD.

BIO-TECHNE

FUJIFILM CELLULAR DYNAMICS INC.

LONZA

MERCK KGAA

NCARDIA

QIAGEN

REPROCELL INC.

STEMCELL TECHNOLOGIES

TAKARA BIO INC.

THERMO FISHER SCIENTIFIC INC.

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

Induced Pluripotent Stem Cells: Global Markets

Market Research Report | 2024-11-07 | 152 pages | BCC Research

To place an Order with Scotts International:

- Print this form
- Complete the relevant blank fields and sign
- Send as a scanned email to support@scotts-international.com

ORDER FORM:

Select license	License	Price
	Single User License	\$4650.00
	2-5 Users License	\$5580.00
	Site License	\$6696.00
	Enterprise License	\$8035.00
		VAT
		Total

*Please circle the relevant license option. For any questions please contact support@scotts-international.com or 0048 603 394 346.

** VAT will be added at 23% for Polish based companies, individuals and EU based companies who are unable to provide a valid EU Vat Numbers.

Email*	Phone*
<input type="text"/>	<input type="text"/>
First Name*	Last Name*
<input type="text"/>	<input type="text"/>
Job title*	
<input type="text"/>	
Company Name*	EU Vat / Tax ID / NIP number*
<input type="text"/>	<input type="text"/>
Address*	City*
<input type="text"/>	<input type="text"/>
Zip Code*	Country*
<input type="text"/>	<input type="text"/>
	Date
	<input type="text" value="2026-02-07"/>

Signature

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com



Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com