

Humanized Mouse and Rat Model Market by Type (Genetic Models, Cell-based Models (CD34, BLT, PMC), Rat Models), Application (Oncology, Immunology, Neuroscience, Toxicology, Infectious Diseases), End User (Pharma, Biotech) & Region - Global Forecast to 2028

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Report description:

The global humanized mouse and rat model market is projected to reach USD 349 million by 2028 from USD 259 million in 2023, at a CAGR of 6.2% during the forecast period of 2023 to 2028. CRISPR is set to gain significant demand to develop genetically modified mouse strains, attributive to affordability and faster outcomes associated with CRISPR. CRISPR has emerged as a potent gene editing technology for market players for genetic modification, developing a efficient genetic humanized mouse models. Humanized mouse models segment accounted for the highest revenue share in the market in 2022.

Based on type, the humanized mouse and rat model market has been segmented into humanized mouse models and humanized rat models. In 2022, humanized mouse models have garnered the highest share in terms of revenue in the market. This segment is also expected to grow with a fastest CAGR through the forecast period. Increase in demand for cell-based humanized mouse models has contributed to the segment's growth. These models are used for a wide range of applications, such as analyzing the safety and effectiveness of potential new drugs and in long-term studies in the fields of immuno-oncology, infectious diseases, and graft-versus-host disease.

The immunology & infectious diseases segment accounted for the second largest share of the market in 2022

Based on application, the humanized mouse and rat model market is segmented into oncology, immunology & infectious diseases, neuroscience, hematopoiesis, toxicology, and other applications. The immunology & infectious diseases segment is the second largest segment in the market in terms of revenue. Mouse models are used in immunology and inflammation studies as they help assess the physiological relevance of an experimental finding. Mouse models allow suitable alterations in the mouse genome at random or in specific regions, enabling a detailed study of immunological processes.

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Europe is the second largest region in the humanized mouse and rat model market

The humanized mouse and rat model market is segmented into North America, Europe, Asia Pacific, Latin America (LATAM) and Middle East and Africa (MEA). A growing focus on combating cancer is a key factor driving market growth. This is evident with the formation of two prominent organizations in Europe-Cancer Core Europe and the EurOPDX Consortium (comprising 18 not-for-profit cancer centers and universities).

The primary interviews conducted for this report can be categorized as follows:

-□By Company- Tire 1-37%, Tire 2-23%, Tire 3-40%

-□By Designation: C Level Executives - 32%, Director level - 26%, and others-42%

-□By Region: North America -35%, Europe -25%, Asia-Pacific -20%, Latin America -12%, and Middle East and Africa - 8%

List of Companies Profiled in the Report

-□Charles River Laboratories (US)

-□THE JACKSON LABORATORY (JAX) (US)

-□Taconic Biosciences, Inc. (US)

-□Crown Biosciences (US)

-□Champions Oncology, Inc. (US)

-□Hera BioLabs (US)

-□genOway (France)

-□Inotiv (US)

-□Vitalstar Biotechnology (China)

-□Ingenious Targeting Laboratory (US)

-□TRANS GENIC (Japan)

-□Harbour Antibodies BV (Netherlands)

-□Oncodesign (France)

-□Pharmatest Services (Finland)

-□Ozgene Pty Ltd. (Australia)

-□TransCure bioServices (France)

-□Cyagen Biosciences (US)

-□Aragen Life Sciences Ltd. (India)

-□GemPharmatech (China)

-□Biocytogen (US)

Research Coverage:

This report provides a detailed picture of the humanized mouse and rat model market. It aims at estimating the size and future growth potential of the market across different segments such as the type, application, end user, and region. The report also includes an in-depth competitive analysis of the key market players along with their company profiles recent developments and key market strategies.

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Key Benefits of Buying the Report:

The report will help market leaders/new entrants by providing them with the closest approximations of the revenue numbers for the overall humanized mouse and rat model market and its subsegments. It will also help stakeholders better understand the competitive landscape and gain more insights to better position their business and make suitable go-to-market strategies. This report will enable stakeholders to understand the market's pulse and provide them with information on the key market drivers, restraints, challenges, trends, and opportunities.

The report provides insights on the following pointers:

-□Analysis of key drivers (Growth in the humanized mouse and rat model market is majorly driven by the rising use of humanized models in drug discovery research, rising demand for personalized medicine, government-funded initiatives for cancer research, increasing R&D activities in pharmaceutical & biotechnology industry), restraints (High cost of custom humanized models, and

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regulatory compliance for ethical use of animal models are expected to restrain the growth of this market during the forecast period), opportunities (Growing demand for humanized mouse models, preference for humanized PDX models, and emergence of CRISPR in biomedical research), challenges (Limitations of humanized mouse models and alternative methods for animal testing) are influencing the growth of humanized mouse and rat model market.

- **Product Development/Innovation:** Detailed insights on newly launched products, and technological assessment of the humanized mouse and rat model market.

- **Market Development:** Comprehensive information about lucrative markets - the report analyses the humanized mouse and rat model market across varied regions.

- **Market Diversification:** Exhaustive information about new products, untapped geographies, recent developments, and investments in the humanized mouse and rat model market.

- **Competitive Assessment:** In-depth assessment of market shares, growth strategies, product offerings of leading players like Charles River Laboratories (US), THE JACKSON LABORATORY (JAX) (US), Taconic Biosciences, Inc. (US), Inotiv (US), among others in the humanized mouse and rat model market. The report also helps stakeholders understand the pulse of humanized mouse and rat model market and provides them information on key market drivers, restraints, challenges, and opportunities.

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