

# **Patient-derived Xenograft Model Market Size, Share & Trends Analysis Report By Tumor Type (Lung, Pancreatic), By Model Type (Rats, Mice), By End-user (Pharma & Biopharma Companies, CROs, CDMOs), And Segment Forecasts, 2022 - 2030**

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## **Abstracts**

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### **Patient-derived Xenograft Model Market Growth & Trends**

The global patient-derived xenograft model market size is expected to reach USD 661.4 million by 2030, registering a CAGR of 12.8% over the forecast years according to a new report by Grand View Research, Inc. Growing burden of cancer, which is promoting the demand for new treatment options, along with significant demand for personalized therapies worldwide will boost the growth of the industry. Patient-derived Xenograft (PDX) models have garnered increasing awareness during the past decade. These types are typically characterized by the introduction of fresh immunodeficient mice with patient-derived tumor tissues. These models have been used with efficacy in preclinical studies to identify prospective biomarkers for drug response and resistance, as well as to monitor the development of tumors in therapy response. The concept of a co-clinical study, which involves using several models at once-referred to as “Avatar models”-has recently grown in popularity and has been expanded to incorporate PDX models.

Moreover, PDX models were used in a few prospective trials to direct therapeutic therapy decisions for a limited number of patients with confirmed extended survival. The COVID-19 pandemic had a negative impact on the industry. It disrupted the clinical trials and also reduced the productivity of pharmaceutical & biopharmaceutical companies. According to research by Avantor Sciences, 70% of global clinical trials were disrupted

as of July 2020. 369 trials related to oncology had been delayed in the USA alone, central nervous system trials at 223, gastrointestinal trials at 116, and cardiovascular trials at 99. Despite COVID-19, the rising number of cancer cases & increased R&D activities by pharmaceutical companies will contribute to the growth of the market. For instance, as per the GLOBOCAN Report 2020, 19.3 million new cancer cases and almost 10.0 million cancer deaths occurred in 2020. The majorly impacted cancers were breast, lung, colorectal, and prostate cancer.

### Patient-derived Xenograft Model Market Report Highlights

The breast cancer segment dominated the industry in 2021 due to arise in the cases of breast cancer driving the growth of the market

For instance, female breast cancer is expected 2.3 million new cases & has surpassed lung cancer as the most prevalent disease diagnosed

The mice model type segment held the highest revenue share in 2021 due to factors, such as the increasing use of the mice model for cancer treatment and ease of manipulation & procurement

The CROs & CDMOs end-user segment accounted for the largest share in 2021. The segment is also anticipated to witness the fastest CAGR over the forecast period

A growing number of pharmaceutical companies are outsourcing their preclinical studies to CROs & CDMOs, which, in turn, is driving the growth of this segment

North America was the largest region in 2021 due to a high number of research studies in the region, increased funding for preclinical research, and demand for innovative therapies

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