

Oncology-Based In Vivo CRO Market Set to Reach USD 2.15 Bn by 2034, Driven by Rising Advancements in Precision Medicine

The Oncology-Based In Vivo CRO Market will grow from USD 1.33B in 2024 to USD 2.15B by 2034, driven by cancer rise, precision medicine, and AI innovations.

VANCOUVER, BC, CANADA, August 25, 2025 /EINPresswire.com/ -- The global [Oncology-Based In Vivo Contract Research Organization \(CRO\) market](#) is

on a strong growth path, projected to increase from USD 1.33 billion in 2024 to USD 2.15 billion by 2034, growing at a CAGR of 8.58%. This growth is fueled by the rising number of cancer cases worldwide and the increasing demand for advanced drug testing and development.



Reports And Data

Get Free Sample PDF (To Understand the Complete Structure of this Report [Summary + TOC]) @ <https://www.reportsanddata.com/download-free-sample/24938>

Market Outlook

Cancer remains one of the biggest global health challenges. As cases continue to rise, the need for effective treatments is pushing pharmaceutical and biotechnology companies to rely more on in vivo CROs for drug discovery, preclinical testing, and translational research. Preclinical oncology studies are expected to dominate the market, while personalized medicine—powered by genomics and targeted therapies—will be the fastest-growing area.

North America is expected to lead the market, supported by a strong healthcare infrastructure and major R&D investments. Meanwhile, Asia Pacific is set to record the fastest growth, thanks to rising healthcare spending and increased clinical trial activity.

Key Growth Drivers

The demand for precision medicine is one of the biggest drivers of growth. By tailoring treatments to a patient's genetic profile, precision medicine is transforming cancer care. Funding

in this field is rising sharply, with the U.S. National Institutes of Health reporting a 20% increase in related initiatives.

Technological progress is also reshaping the market. Artificial Intelligence (AI) and machine learning are now central to drug research, helping scientists analyze complex datasets more accurately and quickly. For example, AI-driven platforms can cut data analysis time by up to 30%. Other innovations, such as 3D bioprinting of tumor models, are improving accuracy in preclinical testing by as much as 25%.

Public initiatives are also helping accelerate cancer research. The U.S. Cancer Moonshot program has committed USD 1.8 billion to innovative projects, including those focused on in vivo studies. Leading CROs are also innovating: in 2023, Charles River Laboratories launched an AI-powered oncology research platform that boosted the accuracy of preclinical models by 25%.

Market Challenges

Despite promising growth, the industry faces challenges. Regulatory compliance remains complex and costly, with strict standards such as the FDA's Good Laboratory Practices adding to operational expenses. Ethical concerns about animal testing are also growing, with surveys showing that nearly two-thirds of researchers view these concerns as a significant barrier to adoption.

In Europe, the implementation of GDPR has added to compliance costs, with CROs reporting an increase of more than USD 2 billion to meet data protection requirements. The high costs, long timelines, and need for specialized infrastructure also limit market entry for new players, restricting competition.

Segmentation Highlights

By Product Type

Preclinical Services will dominate, growing from USD 0.75 billion in 2024 to USD 1.25 billion by 2034. Toxicology testing is the largest sub-segment, as drug safety remains a priority.

Clinical Services will be the fastest-growing segment, expanding at 9% CAGR, as pharmaceutical firms increasingly outsource trial operations.

Laboratory Services will continue to play a supporting role in drug development.

By Application

Drug Discovery will remain the largest segment, rising from USD 0.55 billion in 2024 to USD 0.90 billion by 2034.

Preclinical Testing will grow fastest at 9.5% CAGR, supported by AI-driven predictive models that reduce late-stage failures.

Translational Research is also expanding, with patient-derived xenograft models improving the relevance of laboratory findings for real-world treatments.

By End User

Pharmaceutical Companies will remain the largest end users, increasing from USD 0.70 billion in 2024 to USD 1.10 billion by 2034.

Biotechnology Companies will grow fastest at 9.2% CAGR, driven by a focus on innovative therapies.

Research Institutes continue to contribute significantly, especially in early-stage discoveries and translational research.

Regional Insights

North America will remain the leader due to advanced infrastructure, strong regulatory frameworks, and high R&D investments.

Asia Pacific will record the fastest growth, with expanding clinical trial networks and higher healthcare spending.

Europe continues to play a strong role, though rising compliance costs could slow momentum.

Access Full Report Description with Research Methodology and Table of Contents @ <https://www.reportsanddata.com/report-detail/oncology-based-in-vivo-cro-market>

Oncology Based In Vivo Cro Competitive Strategies & Notable Developments

Top 10 Companies

Charles River Laboratories Covance Inc. ICON plc PAREXEL International Corporation
Pharmaceutical Product Development, LLC (PPD) WuXi AppTec Medpace Holdings, Inc. Syneos
Health PRA Health Sciences QuintilesIMS

Strategy

Top players in the Oncology Based In Vivo CRO Market are competing through strategic partnerships, technological advancements, and vertical integration. Charles River Laboratories, for example, holds a 12% market share due to its comprehensive service offerings and strategic collaborations with pharmaceutical companies. Covance Inc. is leveraging its global network and technological capabilities to expand its market presence, while ICON plc is focusing on innovation and digital transformation to enhance its service offerings. Strategic moves include mergers and acquisitions, such as PAREXEL's acquisition of ExecuPharm to expand its clinical trial capabilities, and partnerships, such as WuXi AppTec's collaboration with AstraZeneca to accelerate oncology drug development. Innovation benchmarks include the development of AI-driven platforms for data analysis and the adoption of 3D bioprinting for tumor modeling.

Oncology Based In Vivo Cro Market Segmentation

By Product Type

Preclinical Services
Clinical Services
Laboratory Services

By Application
Drug Discovery
Preclinical Testing
Translational Research

By End User
Pharmaceutical Companies
Biotechnology Companies
Research Institutes

By Technology
AI and Machine Learning
3D Bioprinting
Genomics

By Region
North America
Europe
Asia Pacific
Latin America
Middle East & Africa

Request a customization of the report @ <https://www.reportsanddata.com/request-customization-form/24938>

Read More Related Report @

Warehousing Sector Market <https://www.reportsanddata.com/report-detail/warehousing-sector-market>

Domestic Courier Market <https://www.reportsanddata.com/report-detail/domestic-courier-market>

Refrigerated Container Shipping Market <https://www.reportsanddata.com/report-detail/refrigerated-container-shipping-market>

Warehousing Market <https://www.reportsanddata.com/report-detail/warehousing-market>

Maritime Industry Market <https://www.reportsanddata.com/report-detail/maritime->

About Reports and Data

Reports and Data is a market research and consulting company that provides syndicated research reports, customized research reports, and consulting services. Our solutions purely focus on your purpose to locate, target, and analyze consumer behavior shifts across demographics, across industries, and help clients to make smarter business decisions. We offer market intelligence studies ensuring relevant and fact-based research across multiple industries, including Healthcare, Touch Points, Chemicals, Products, and Energy. We consistently update our research offerings to ensure our clients are aware of the latest trends existent in the market. Reports and Data has a strong base of experienced analysts from varied areas of expertise. Our industry experience and ability to develop a concrete solution to any research problems provides our clients with the ability to secure an edge over their respective competitors.

Debanjan Biswas

Reports and Data

+91 80872 27888

purushottam@reportsanddata.com

This press release can be viewed online at: <https://www.einpresswire.com/article/842861351>

EIN Presswire's priority is source transparency. We do not allow opaque clients, and our editors try to be careful about weeding out false and misleading content. As a user, if you see something we have missed, please do bring it to our attention. Your help is welcome. EIN Presswire, Everyone's Internet News Presswire™, tries to define some of the boundaries that are reasonable in today's world. Please see our Editorial Guidelines for more information.

© 1995-2025 Newsmatics Inc. All Right Reserved.