

# **Global Optical Preclinical Imaging Market Size study & Forecast, by Modality( Bioluminescence & Fluorescence Imaging Systems, Standalone Fluorescence Imaging Systems, Optical + X-ray & Optical + CT) by End User( Pharma & Biotech Companies, Academic & Government Research Institutes, Contract Research Organizations) and Regional Analysis, 2023-2030**

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## **Abstracts**

Global Optical Preclinical Imaging Market is valued at approximately USD 542.94 million in 2022 and is anticipated to grow with a healthy growth rate of more than 5.2% over the forecast period 2023-2030. Optical preclinical imaging is a non-invasive imaging technique that uses light to visualize and monitor biological processes in living organisms at a preclinical stage, typically in small animal models. It allows researchers to study the molecular and cellular level interactions within living organisms, such as tracking the growth of tumors, assessing metabolic processes, and studying gene expression. Optical preclinical imaging has numerous applications in biomedical research, including drug development, disease modeling, and understanding the underlying mechanisms of various biological processes. The technique is relatively low cost, has high sensitivity, and allows for longitudinal studies over extended periods, making it a valuable tool for preclinical research. The Optical Preclinical Imaging market is expanding because of factors such as increasing funding for preclinical research by both private and public organizations and increase in demand for noninvasive small animal imaging techniques.

Pharmaceutical companies are increasingly investing in preclinical research to develop

new drugs and therapies, and optical preclinical imaging has emerged as a powerful tool for this purpose. These imaging techniques enable researchers to visualize and track the molecular and cellular events that occur during disease progression, drug response, and toxicity, providing valuable insights into the safety and efficacy of potential drugs. According to Statista, total global spending on pharmaceutical research and development in year 2020 stood at USD 207 billion which increased to USD 238 billion in year 2022 and it is projected to reach USD 285 billion by year 2028. Thus, rising spending on pharmaceutical research and development activities is driving the market growth. In addition, the increasing prevalence of chronic diseases such as cancer, cardiovascular diseases, and neurological disorders has also driven the demand for optical preclinical imaging. These imaging techniques are used to study the mechanisms of these diseases and to develop new therapies to treat them. Moreover, technological advancements in molecular imaging and rising clinical research and drug discovery activities are creating lucrative opportunity to the market growth. However, the high cost of optical preclinical Imaging and stringent regulations for preclinical research stifles market growth throughout the forecast period of 2023-2030.

The key regions considered for the Global Optical Preclinical Imaging Market study includes Asia Pacific, North America, Europe, Latin America, and Middle East & Africa. North America dominated the market in 2022 owing to the dominance of branded products and the region's increasing disease prevalence. Asia Pacific is expected to grow significantly during the forecast period, owing to factors such as rising target populations, an increase in the number of collaborations for drug development, geographic expansion of key players, and active participation of government and nonprofit organizations in the market space.

Major market player included in this report are:

Berthold Technologies GmbH & Co.KG  
Endress+Hauser (Analytik Jena US LLC)  
Fujifilm Corporation (Fujifilm VisualSonics Inc.)  
LI-COR Biosciences, Inc.  
Miltenyi Biotec  
PerkinElmer, Inc.  
Rigaku Corporation (MILabs B.V.)  
TriFoil Imaging  
Viewworks Co., Ltd.  
Vilber Smart Imaging Ltd.

Recent Developments in the Market:

In May 2022, Bruker announced the release of the ground-breaking 7 Tesla and 9.4 Tesla conduction-cooled Maxwell magnets for its market-leading preclinical magnetic resonance imaging (MRI) system series. The new Maxwell 7 Tesla and 9.4 Tesla magnets build on the popularity of the BioSpec® Maxwell 3 Tesla model by removing the need for liquid Helium or Nitrogen refills while offering high-field sensitivity and resolution for sophisticated preclinical MRI and PET/MR research.

In April 2021, WCG acquired Intrinsic Imaging, a significant global provider of medical imaging core lab services. With over a decade of experience, a team of more than 500 board-certified physicians, and extensive services in support of drug, medical device, and artificial intelligence (AI) clinical trials, Intrinsic Imaging strengthens WCG's scientific and regulatory capabilities. The Company's suite of solutions designed to ensure data integrity and reduce risk in clinical research are complemented by Intrinsic Imaging.

Global Optical Preclinical Imaging Market Report Scope:

Historical Data – 2020 - 2021

Base Year for Estimation – 2022

Forecast period - 2023-2030

Report Coverage - Revenue forecast, Company Ranking, Competitive Landscape, Growth factors, and Trends

Segments Covered – Modality, End User, Region

Regional Scope - North America; Europe; Asia Pacific; Latin America; Middle East & Africa

Customization Scope - Free report customization (equivalent up to 8 analyst's working hours) with purchase. Addition or alteration to country, regional & segment scope\*

The objective of the study is to define market sizes of different segments & countries in recent years and to forecast the values to the coming years. The report is designed to incorporate both qualitative and quantitative aspects of the industry within countries involved in the study.

The report also caters detailed information about the crucial aspects such as driving factors & challenges which will define the future growth of the market. Additionally, it also incorporates potential opportunities in micro markets for stakeholders to invest along with the detailed analysis of competitive landscape and Modality offerings of key players. The detailed segments and sub-segment of the market are explained below:

By Modality:

Bioluminescence & Fluorescence Imaging Systems

Standalone Fluorescence Imaging Systems  
Optical + X-ray & Optical + CT

By End User:

Pharma & Biotech Companies  
Academic & Government Research Institutes  
Contract Research Organizations

By Region:

North America

U.S.

Canada

Europe

UK

Germany

France

Spain

Italy

ROE

Asia Pacific

China

India

Japan

Australia

South Korea

RoAPAC

Latin America

Brazil

Mexico

Middle East & Africa

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