

AI-based Digital Pathology Market by Type of Neural Network (Artificial Neural Network, Convolutional Neural Network, Fully Convolutional Network, Recurrent Neural Network and Other Neural Networks), Type of Assay (ER Assay, HER2 Assay, Ki67 Assay, PD-L1 Assay, PR Assay and Other Type of Assays), Type of End-user (Academic Institutions, Hospitals / Healthcare Institutions, Laboratories / Diagnostic Institutions, Research Institutes and Other End-users), Area of Application (Diagnostics, Research and Other Areas of Application), Target Disease Indication (Breast Cancer, Colorectal Cancer, Cervical Cancer, Gastrointestinal Cancer, Lung Cancer, Prostate Cancer and Other Indications) and Key Geographies (North America, Europe, Asia, Latin America, Middle East and North Africa and Rest of the World): Industry Trends and Global Forecasts, 2022-2035

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Abstracts

Pathology, an essential field in medicine, focuses on comprehending the nature, causes, and origins of diseases. It is pivotal in diagnosing various conditions, especially

cancer, contributing significantly to healthcare decisions—around 70-80%. The projected surge in cancer cases, expected to reach 27 million new cases annually by 2040, alongside an aging population, anticipates a substantial increase in pathologists' workload. However, there's a declining number of active pathologists, estimated to drop by 30% by 2030 compared to 2010, with about 63.2% expected to retire in the next decade. This could create a significant gap between the demand for pathology services and the available pathologists.

Technological advancements, notably AI-driven digital imaging, have revolutionized pathology. AI-based digital pathology involves digitizing patient samples to create high-resolution digital slides for analysis. This innovation significantly improves diagnostic accuracy and research capabilities. It addresses the growing workload by enabling faster and more consistent diagnoses, facilitating remote collaboration, reducing errors, increasing productivity, and saving costs. Investments in digital pathology have soared, exceeding \$1.6 billion since 2016, with substantial funding in 2021 alone. The recent collaboration between 3DHISTECH and Epredia to speed up cancer diagnostics through a pathology innovation incubator demonstrates the industry's growth and dedication to enhancing healthcare and research. Experts foresee a steady market growth in the upcoming years due to the rising demand for AI-based digital pathology solutions and continuous advancements in this field.

Report Coverage

The report conducts an examination of the digital pathology market, focusing on type of neural network, type of assay, type of end-user, area of application, type of target disease indication and key geographies

It analyzes the market's growth factors such as drivers, restraints, opportunities, and challenges that impact its progression.

Assessment of potential advantages and obstacles within the market is provided, along with insights into the competitive landscape for leading market players.

Revenue forecasts for market segments are presented concerning six major regions.

A comprehensive overview summarizes research insights on the present state and anticipated evolution of the AI-based digital pathology market in the medium

to long term.

The introduction to AI-based digital pathology delves into artificial intelligence applications within digital pathology, outlining workflows, healthcare applications, and regulatory requirements. It concludes with discussions on challenges, growth drivers, and future prospects of AI in digital pathology.

Detailed evaluation of AI-based digital pathology companies considers parameters such as geographical reach, establishment year, company size, headquarters location, product and service types, features, applications, target diseases, end-users, and available software count.

In-depth analysis covers contemporary market trends including service and application distribution, feature and application distribution, product types and headquarters location, and a hybrid representation of company size and headquarters location.

Elaborate profiles of notable companies in this domain encompass company overview, establishment year, employee count, headquarters location, management team, recent developments, and future outlook.

Evaluation of industry players' capabilities across various services in AI-based digital pathology facilitates comparison within peer groups and identifies opportunities for competitive advantage. This includes benchmarking based on portfolio strength and funding activity.

Analysis of funding and investments in digital pathology from 2016 to 2022 details instances, invested amounts, funding types, application areas, geographies, and active players in the AI-based digital pathology domain.

Thorough analysis aims to estimate present and future demand based on geographical regions (North America, Europe, Asia, Latin America, MENA, Rest of the World) and end-users (hospitals, research, and other sectors).

Key Market Companies

PathAI

Paige

Akoya Biosciences

PROSCIA

Visiopharm

Roche Tissue Diagnostics

Aiforia Technologies

Indica Labs

Ibex Medical Analytics

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