

DNA Encoded Library Market: Platforms and Services (2nd Edition) - Distribution by Application Area (Hit Generation / Identification, Hit to Lead, Hit Validation / Optimization and Other Application Areas), Therapeutic Area (Oncological Disorders, Immunological Disorders, Neurological Disorders, Respiratory Disorders, Dermatological Disorders, Cardiovascular Disorders, Infectious Diseases and Other Therapeutic Areas), End-users (Pharma / Biopharma Industry, Academic / Research Institute and Other End-users), Type of Payment Model Employed (Upfront Payment and Milestone Payment) and Key Geographical Regions (North America - US, Europe - UK, Germany, Denmark, France, Switzerland and Rest of the Europe, and Asia-Pacific - China): Industry Trends and Global Forecasts, 2023-2035

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Abstracts

The global DNA encoded library market is expected to reach USD 840 million in 2023 anticipated to grow at a CAGR of 16% during the forecast period 2023-2035.

Over time, DNA encoded libraries have emerged as a resilient platform for drug discovery, streamlining the synthesis and screening of millions of small molecules in a

unified investigation. These libraries comprise small molecules tagged with DNA, serving as unique identifiers or barcodes for identification purposes. The adoption of DNA encoded chemical libraries has experienced a notable surge recently, primarily attributed to their ability to expedite the drug discovery process by reducing the time and costs associated with traditional high-throughput screening methods.

The growing demand for novel therapies addressing complex diseases, particularly oncological and neurological disorders, has driven the rapid advancement of DNA encoded libraries. This heightened interest has been further amplified by increased adoption of DNA encoded chemical libraries among pharmaceutical and biotechnology companies, academic institutions, and contract research organizations. Consequently, these factors have significantly contributed to the burgeoning market growth within this sector.

Propelled by continual innovation in this field and substantial financial support from investors, it is expected that the DNA encoded library market will undergo substantial expansion throughout the forecasted period.

Report Coverage

An executive summary of the insights captured in our research. It presents a high-level view on the current scenario within the DNA-encoded libraries developers' market and its evolution in the short-mid-term and long term.

An introduction to the process of drug discovery and development. In addition, the chapter focuses on the concept of DNA-encoded libraries with information on the evolution of these libraries, advantages over other conventional drug discovery methods and the challenges associated with the same. It also features a brief discussion on the opportunities and the likely future trends in this field.

A detailed overview of the current market landscape of DNA-encoded libraries, featuring information on type of pharmacological lead (macrocycles, natural products, peptides and small molecules), library size, method of library synthesis, type of therapeutic target and type of therapeutic area. In addition, the chapter provides an overview of DNA-encoded libraries developers and analysis based on parameters, such as year of establishment, company size, type of service offered (screening service / hit identification, hit optimization / validation, custom library design / synthesis, in-house drug development and DNA-encoded library service kits) and geographical location.

An in-depth analysis and discussion on the various collaborations and partnerships inked between the players in the recent past; these include research collaborations, research and development agreements, licensing agreements, acquisitions, distribution agreements, service alliances, and other relevant agreements.

Detailed profiles of the prominent service providers engaged in this domain. Each profile features a brief overview of company, information on its services associated with their DNA-Encoded library, recent developments and an informed future outlook.

A case study on the therapeutic target(s) against which the DNA-encoded libraries are capable of identifying potential leads. Examples of such targets include undruggable cancer targets (special focus on GPCRs), DNA repair targets (special focus on PARP inhibitors) and other targets (such as alpha-1-acid glycoprotein (AGP), carbonic anhydrase IX, mitogen-activated protein kinase 14 (MAPK14), Neurokinin 3 (NK3), receptor-interacting protein 1 kinase (RIP1), soluble epoxide hydrolase (sEH) and interleukin 2).

An overview of the initiatives taken by big pharma companies (such as Amgen, AstraZeneca, GSK, Novartis, Pfizer and Roche) involved in this domain, highlighting the key focus areas of these players along with information on the recent deals inked with the DNA-encoded library providers (if available). It also features company snapshots for each of the above-mentioned companies.

An insightful market forecast analysis, highlighting likely growth of DNA-encoded libraries market till the year 2030, on the basis of likely licensing deal structures and agreements that are expected to be signed in the foreseen future. The market is segmented across distribution by application area, therapeutic area, end-users, type of payment model employed and key geographical regions

Key Market Companies

AlphaMa

DICE Therapeutics

DyNABind

HitGen

NovAliX

Vipergen

WuXi AppTec

X-Chem

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