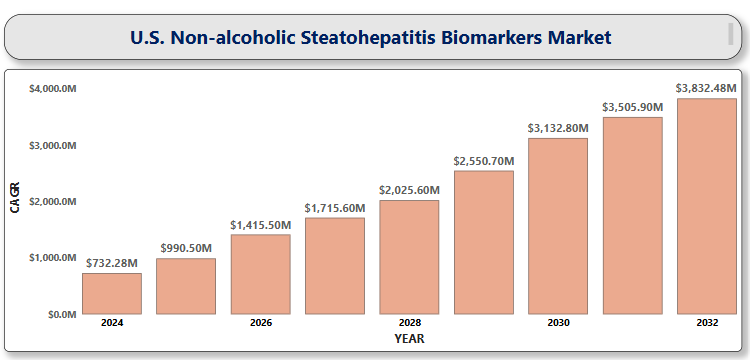
A close-up of hands holding a tablet and a pen

Description automatically generated**U.S. Non-alcoholic Steatohepatitis Biomarkers Market**

According to Intelli, the U.S. Non-alcoholic Steatohepatitis Biomarkers Market size was valued at USD 732.28 Million in 2024 and is projected to reach USD 3,832.48 Million by 2032, growing at a compound annual growth rate (CAGR) of 23.48%, during the forecast period of 2024 to 2032.



Non-alcoholic steatohepatitis (NASH) is a progressive liver disease characterized by inflammation and liver cell damage in individuals who consume little to no alcohol. It is considered a more advanced form of non-alcoholic fatty liver disease (NAFLD), which is often associated with metabolic conditions such as obesity, type 2 diabetes, and dyslipidemia. NASH has emerged as a major public health concern due to its rising prevalence and its potential to progress to cirrhosis, liver failure, or hepatocellular carcinoma. Biomarkers are essential tools for the early detection, diagnosis, and monitoring of NASH. Unlike invasive liver biopsies, which, despite being the gold standard, are costly and uncomfortable, biomarkers offer a non-invasive and cost-effective alternative. They help assess the severity of the disease, track its progression, and predict outcomes, enabling timely interventions and informed management decisions. Among the most commonly used biomarkers for NASH are hepatic transaminases, such as alanine aminotransferase (ALT) and aspartate aminotransferase (AST), which are typically elevated in individuals with liver damage. However, these markers lack the specificity required to definitively diagnose NASH, leading to the search for more precise and sensitive alternatives. Advanced biomarkers, including cytokeratin-18 fragments, fibrotest, and liver stiffness measurement (LSM), provide greater specificity and have already been integrated into clinical practice to assess liver fibrosis and NASH severity. Additionally, ongoing research into metabolomic and genetic markers holds promise for identifying unique signatures of NASH, offering potential for improved diagnostic accuracy and enabling more personalized treatment approaches. As the field advances, biomarkers not only help in clinical decision-making but also open the door for the creation of novel therapeutic agents that could halt or reverse the progression of the disease, ultimately improving patient outcomes.

**U.S. Non-alcoholic Steatohepatitis Biomarkers Market Definition**

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Description automatically generatedThe U.S. Non-alcoholic Steatohepatitis biomarkers market refers to the growing sector focused on the development, validation, and commercialization of diagnostic tools that aid in the detection, monitoring, and assessment of NASH. This market encompasses a range of innovative, non-invasive biomarkers, such as serum tests, imaging technologies, and advanced molecular markers, that provide alternatives to traditional liver biopsies.

**U.S. Non-alcoholic Steatohepatitis Biomarkers Market overview**

The U.S. Non-alcoholic Steatohepatitis biomarkers market is driven by several key factors that contribute to its rapid growth and development. First, the rising prevalence of NASH, largely due to the increasing rates of obesity, type 2 diabetes, and metabolic syndrome in the U.S., has created a significant demand for effective diagnostic tools. As more individuals are diagnosed with these underlying conditions, the need for reliable and non-invasive biomarkers to detect and monitor NASH becomes even more critical. Second, ongoing advancements in biomarker discovery, fueled by cutting-edge research in genomics, proteomics, and metabolomics, have led to the identification of highly sensitive and specific biomarkers that improve diagnostic accuracy and disease monitoring. Third, there is a strong shift towards non-invasive diagnostic methods, such as serum biomarkers and advanced imaging techniques, which offer greater comfort and cost-effectiveness compared to traditional liver biopsy. Finally, increasing awareness among healthcare providers and patients about the risks of NASH and the potential for disease progression has accelerated the demand for early diagnostic tools that can detect the disease before irreversible damage occurs.

**U.S. Non-alcoholic Steatohepatitis Biomarkers Market Segmentation**

The U.S. Non-alcoholic Steatohepatitis biomarkers market can be segmented based on various factors such as biomarker type, diagnostic technique, and end-user.

**U.S. Non-alcoholic Steatohepatitis Biomarkers Market, By Biomarker Type**

* **Liver Enzymes**
* **Fibrosis Markers**
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  Description automatically generated**Cytokeratin-18 Fragments**
* **Liver Stiffness Measurement (LSM)**
* **Metabolomic and Genetic Markers**

The U.S. Non-alcoholic Steatohepatitis biomarkers market is predominantly driven by a diverse range of biomarker types, each playing a critical role in diagnosing and monitoring the disease. Among these, liver enzymes, such as ALT and AST, are widely used due to their ease of measurement and established role in identifying liver damage. However, they currently hold a smaller market share due to their lack of specificity for NASH. Fibrosis markers, including tests like FibroTest, have gained significant traction, capturing a growing portion of the market, as they provide a more accurate assessment of liver fibrosis, a key feature in disease progression. The use of cytokeratin-18 fragments is rapidly expanding, driven by their ability to specifically detect apoptosis and liver inflammation in NASH patients, further bolstering their market share. Liver stiffness measurement (LSM), an advanced imaging technique, is increasingly favored for its non-invasive nature, providing accurate insights into liver stiffness and fibrosis, and capturing a significant share of the market as it becomes more widely adopted in clinical practice. Lastly, metabolomic and genetic markers are emerging as powerful tools, offering personalized and precise diagnostics. While their market share remains smaller, ongoing research and innovation in these areas are expected to drive rapid growth, establishing them as key players in the future of NASH biomarker diagnostics.

**U.S. Non-alcoholic Steatohepatitis Biomarkers Market,** **By Diagnostic Technique**

* **Non-invasive Blood Tests**
* **Liver Biopsy**
* **Imaging Techniques**

The U.S. Non-alcoholic Steatohepatitis biomarkers market is significantly shaped by the adoption of various diagnostic techniques, each offering unique benefits in detecting and monitoring the disease. Non-invasive blood tests have emerged as one of the most widely used methods, owing to their convenience, cost-effectiveness, and ease of implementation. Despite the rise of non-invasive tests, liver biopsy remains the gold standard for confirming NASH and assessing liver fibrosis, particularly in clinical research settings. However, its market share is declining due to its invasive nature, discomfort for A close-up of hands holding a tablet and a pen

Description automatically generatedpatients, and associated risks, prompting a shift toward less invasive techniques. Imaging techniques, such as liver stiffness measurement (LSM) and elastography, are gaining traction as effective non-invasive alternatives, offering real-time assessment of liver fibrosis and offering better patient compliance compared to biopsies.

**U.S. Non-alcoholic Steatohepatitis Biomarkers Market, By End-User**

* **Hospitals**
* **Diagnostic Laboratories**
* **Research Institutes**

The U.S. Non-alcoholic Steatohepatitis biomarkers market is significantly influenced by its key end-users, each playing a pivotal role in the diagnosis, monitoring, and advancement of NASH treatment. Hospitals hold the largest market share, serving as primary healthcare settings where patients are diagnosed and managed for NASH. Diagnostic laboratories also play a crucial role, accounting for a substantial portion of the market. These labs are instrumental in processing and analyzing biomarkers from blood tests and tissue samples, offering a critical service in both routine screenings and specialized diagnostic assessments. Research institutes contribute significantly to the market by advancing the discovery and validation of new biomarkers, focusing on personalized medicine, genetic markers, and emerging diagnostic technologies. As the field evolves, research institutes are expected to drive innovation, fostering the emergence of novel biomarkers and shaping the future of NASH diagnostics.

**Key Players**

The “U.S. Non-alcoholic Steatohepatitis biomarkers market" study report will provide valuable insight emphasizing the U.S. market. The major players in the market Cytokinetics, Celleron Therapeutics, Siemens Healthineers, Abbott Laboratories, Bio-Rad Laboratories, Quest Diagnostics, F. Hoffmann-La Roche, Labcorp, Medtronic, PerkinElmer, Thermo Fisher Scientific, Genfit, AstraZeneca, Gilead Sciences, Madrigal Pharmaceuticals, Intercept Pharmaceuticals, Novartis, Cezar BioTech, Inova Diagnostics, PathAI among others. Our market analysis also entails a section solely dedicated to such major players A close-up of hands holding a tablet and a pen

Description automatically generatedwherein our analysts provide an insight into the financial statements of all the major players, along with product benchmarking and SWOT analysis.

**Key Developments**

* In 2024, researchers developed a new AI-based model using advanced machine learning techniques to improve the non-invasive detection and staging of fat buildup in the liver, including in NASH patients.
* In 2025, SomaLogic's SOMAscan platform stands out as an innovative tool that can measure thousands of proteins at once. This powerful technology offers a detailed view of the proteome, helping researchers discover new disease biomarkers that traditional tests often miss.
* In 2024, the FDA approved Rezdiffra from Madrigal Pharmaceuticals, the first drug specifically for adults with noncirrhotic NASH and moderate to advanced liver fibrosis.

**Market Attractiveness**

The image of market attractiveness provided further helps to get information about the region leading in the U.S. Non-alcoholic Steatohepatitis biomarkers market. We cover the major impacting factors driving the industry growth in the given region.

**Porter’s Five Forces**

The image provided would further help to get information about Porter's five forces framework providing a blueprint for understanding the behavior of competitors and a player's strategic positioning in the respective industry. Porter's five forces model can be used to assess the competitive landscape U.S. Non-alcoholic Steatohepatitis biomarkers market, gauge the attractiveness of a particular sector, and assess investment possibilities.

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