

FLAGSHIP BIOSCIENCES RECEIVES THE 2023 CUSTOMER VALUE LEADERSHIP AWARD

*Identified as best in class in the North American
artificial intelligence-enabled digital pathology
solutions industry*

Best Practices Criteria for World-Class Performance

Frost & Sullivan applies a rigorous analytical process to evaluate multiple nominees for each award category before determining the final award recipient. The process involves a detailed evaluation of best practices criteria across two dimensions for each nominated company. Flagship Biosciences, Inc. excels in many of the criteria in the artificial intelligence-enabled digital pathology solutions space.

| AWARD CRITERIA | |
|------------------------|-------------------------------|
| <i>Business Impact</i> | <i>Customer Impact</i> |
| Financial Performance | Price/Performance Value |
| Customer Acquisition | Customer Purchase Experience |
| Operational Efficiency | Customer Ownership Experience |
| Growth Potential | Customer Service Experience |
| Human Capital | Brand Equity |

Digital Pathology in Diagnostics, Drug Development, and Precision Oncology

Due to diseases like cancer, there is a global shortage of qualified pathologists and rising demand for pathology tests. The Global Cancer Observatory (GCO) estimates that cancer cases worldwide will increase from 19.3 million in 2020 to 28.9 million in 2040.¹

The demand for predictive assays that allow for patient selection and stratification for specific therapies has expanded over the past ten years, driven by developments in precision oncology. The discovery of functionally useful biomarkers based on a single gene or protein is challenging due to various signaling and transcriptional networks governing the interaction between cancer, stromal, and immune cells. However, the morphometric characteristics of stained tissue specimens can uniquely depict the outcome of these intricate processes. Because of whole slide tissue imaging in pathology, artificial intelligence (AI) and machine learning technologies can mine subvisual morphometric phenotypes, which may enhance patient treatment.²

Drug development is an expensive and drawn-out process. According to published research, the investment in developing and marketing one medicine is \$1.3 billion.³ Digital pathology solutions are increasingly used in the preclinical and clinical development phases, particularly toxicologic pathology and clinical trial activities, to speed up the process and curtail expenses.

¹ [Cancer Tomorrow \(iarc.fr\)](https://www.iarc.fr/), accessed November 2022

² <https://www.nature.com/articles/s41571-019-0252-y>, accessed November 2022

³ *AI-Based Image Analysis Tools and Cloud-Based Deployment to Expand the Global Digital Pathology Market*, (Frost & Sullivan, 2021)

Specifically, pharmaceutical companies and contract research organizations use digital pathology to find biomarkers to aid drug development.⁴

Frost & Sullivan estimates the digital pathology market will reach over \$1 billion in 2025, with a compound annual growth rate of about 13% from 2029 to 2025. Flagship Biosciences (Flagship) uniquely leverages

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**- Natalia Casanovas,
Best Practices Research Analyst**

its technology to meet its customers’ needs. It is well-positioned to capitalize on new growth opportunities, cementing its leadership in AI-enabled digital pathology solutions.⁵

Founded in 2009 and headquartered in Broomfield, Colorado, Flagship is a technology-driven spatial biology and biomarker analytics service provider using the most precise and comprehensive data. The

company’s consultative approach and cutting-edge AI are changing biomarker analysis to enhance drug development and diagnostics. Clients include laboratories, pharmaceutical companies, and contract research organizations.

Frost & Sullivan previously recognized Flagship for its technology foresight, unique Computational Tissue Analysis (CTA) platform, pioneering leadership, and continuous developments for advancing novel immuno-oncology treatments with AI-powered image analysis services. In 2023, the distinction is for the company’s customer-first approach.

Flagship: Holistic, Flexible, Responsive

Flagship’s solution goes beyond its extensive expertise and best-in-class technical capabilities, with customer value as a strategic imperative. Through the years, the company has earned a sterling reputation supporting customers’ path toward understanding spatial molecular standpoints, with data-driven characterization supporting their decision-making.

Most next-generation therapies have shown satisfactory results on very narrow populations. Hence, predicting patient response to treatment is essential to advancing precision medicine. Customers know Flagship for its flexibility, deep scientific understanding of what customers need to achieve their objectives, and purposeful AI-powered solutions instead of cookie-cutter services. Specifically, the company focuses on spatial analysis, utilizing digital pathology to discern the contextual interface within tumor microenvironments and gene therapies and identifying and characterizing the proteins involved in those processes.

Unlike competitors, Flagship builds its services by collaborating closely with stakeholders and partners, evolving alongside market needs and trends. It recently acquired Interpace Pharma Solutions® (IPS), based in Research Triangle Park, North Carolina, to expand its offerings. IPS’ complex molecular analysis, flow cytometry techniques, and genomic profiling (nanosttring spatial genetics platform), among others, extend the company’s capabilities beyond solid tumors.

⁴ *AI-Based Image Analysis Tools and Cloud-Based Deployment to Expand the Global Digital Pathology Market*, (Frost & Sullivan, 2021)

⁵ *Ibid.*

*"By combining these organizations, we create a single-source provider offering a range of biomarker and analytics services while maintaining and expanding the proven expertise of each laboratory. Our customers will gain deeper insights into their clinical projects through multiple biomarker testing paradigms with cohesive data and analytical capabilities, managed in a simplified project workflow."*⁶

- Trevor Johnson, CEO, Flagship Biosciences

Flagship and IPS' combined technologies and capabilities empower a holistic and comprehensive view of the patient's molecular and tissue profile status regardless of sample type, i.e., bodily fluid- or tissue-based analysis. For instance, the company can leverage liquid biopsy to characterize each patient's immune or cancer cells and anticipate treatment response when a tumor biopsy is impossible.

Although its core business remains oncology, Flagship is building a portfolio for rare diseases, primarily in gene therapies for dystrophies and other genetic disorders. It has already shown significant progress in the space, collecting, and submitting Phase I to Phase III clinical trial data for Federal Food and Drug Administration (FDA) approval.⁷

"We do not sell services. We provide solutions. We first understand what clients are trying to achieve from a scientific standpoint and then build solutions that really match what they need."

- Trevor Johnson

The company's unique end-to-end services, non-adversarial, seamless, and transparent approach, and close relationships position it as a partner of choice.

Customer Communication Drives Service Excellence

With its customer-focused strategy, Flagship consistently brings to market best-in-class solutions, its primary goal. The company incorporates customer feedback into its strategic decisions and

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implementation plans to maximize short-term growth opportunities while providing a path to future revenues. It stays attuned to customers' needs through its scientific and medical teams working together and regularly interacting with customers' medical staff to ensure goal alignment and work accordingly.

Most customers lack in-house biomarker and spatial biology capabilities, considering Flagship an extension of their scientific team. Thus, communication flow is essential in data-driven project management and

decision-making for successful clinical research and accurate diagnostics. The company's 90% retention rate underscores high customer satisfaction,⁸ highlighting its service excellence.

⁶ [Flagship Bio Acquires Pharma Services Business from Interpace Bio | Pharmaceutical Outsourcing - The Journal of Pharmaceutical & Biopharmaceutical Contract Services \(pharmoutsourcing.com\)](#), accessed December 2022

⁷ Flagship Interview with Frost & Sullivan, November 2022

⁸ Ibid

Furthermore, Flagship is driving forward the newly coined virtual pathology concept. Its virtual central laboratory expands its global footprint. The model leverages image staining and scanning locally with digitization and image uploading centralizing pathology reading and image analysis. The company's virtual central laboratory establishes a best practices framework for standardized data, i.e., consistency and security, maintaining data quality and integrity.

Flagship's virtual pathology offering aligns with decentralized clinical trials, a growing trend. It can facilitate protocol adjustments through trial sites and regions, e.g., Asia and Europe, to optimize strategies for more successful clinical trials.

Future Roadmap

Since its inception, Flagship's sterling reputation and customer-centric framework led to its coveted preferred partner status. Over the years, it added a range of new customers to its established base.

The company anticipates significant year-over-year growth in 2022.⁹ Flagship's strategic roadmap includes international expansion, mainly to Europe and Asia. It will focus on using spatial analysis in a clinical setting in the coming year.

Spatial biology solutions are becoming increasingly important in today's life sciences market, particularly precision medicine. However, vendors must offer clinically-validated solutions for clinical research applications, e.g., meaningful clinical, biological, or physical measurements and predictions in a stated context. A premier spatial biology and biomarker partner, Flagship uniquely provides flexible, end-to-end oncology and gene and cell therapy AI-powered digital pathology solutions for clinical trials in validated settings. Its customers have access to innovative technology customized to meet sophisticated drug development needs and regulatory requirements, which no other provider can match.

Frost & Sullivan believes Flagship is well-positioned to drive AI-enabled digital pathology solutions into its next growth phase, capturing market share and sustaining its leadership in the coming years.

⁹ Flagship Interview with Frost & Sullivan, November 2022

Conclusion

Customer-centric strategies help companies safeguard leading positions in markets, but only if the approach is authentic and the implementation is seamless. Flagship Biosciences (Flagship) incorporates customer-focused strategies and exemplifies best practice implementation. Since its inception, the company has earned a sterling reputation supporting customers' path toward understanding spatial molecular standpoints, with data-driven characterization supporting their decision-making.

Customers know Flagship for its flexibility, deep scientific understanding of what customers need to achieve their objectives, and purposeful AI-powered solutions instead of cookie-cutter services. The company uniquely provides flexible, end-to-end oncology and gene and cell therapy AI-powered digital pathology solutions for clinical trials in validated settings. Its customers have access to innovative technology customized to meet regulatory novel drug development requirements, which no other provider can match.

Flagship reports 90% retention rates, underscoring high customer satisfaction and highlighting its service excellence. This overall customer-first approach offers immense value to existing and new customers and solidifies Flagship's leading reputation in the market.

With its strong overall performance, Flagship earns Frost & Sullivan's 2023 North American Customer Value Leadership Award in the AI-enabled digital pathology solutions market.

What You Need to Know about the Customer Value Leadership Recognition

Frost & Sullivan's Customer Value Leadership Award recognizes the company that offers products or services customers find superior for the overall price, performance, and quality.

Best Practices Award Analysis

For the Customer Value Leadership Award, Frost & Sullivan analysts independently evaluated the criteria listed below.

Business Impact

Financial Performance: Strong overall financial performance is achieved in terms of revenues, revenue growth, operating margin, and other key financial metrics

Customer Acquisition: Customer-facing processes support efficient and consistent new customer acquisition while enhancing customer retention

Operational Efficiency: Company staff performs assigned tasks productively, quickly, and to a high-quality standard

Growth Potential: Growth is fostered by a strong customer focus that strengthens the brand and reinforces customer loyalty

Human Capital: Commitment to quality and to customers characterize the company culture, which in turn enhances employee morale and retention

Customer Impact

Price/Performance Value: Products or services provide the best value for the price compared to similar market offerings

Customer Purchase Experience: Quality of the purchase experience assures customers that they are buying the optimal solution for addressing their unique needs and constraints

Customer Ownership Experience: Customers proudly own the company's product or service and have a positive experience throughout the life of the product or service

Customer Service Experience: Customer service is accessible, fast, stress-free, and high quality

Brand Equity: Customers perceive the brand positively and exhibit high brand loyalty

About Frost & Sullivan

Frost & Sullivan is the Growth Pipeline Company™. We power our clients to a future shaped by growth. Our Growth Pipeline as a Service™ provides the CEO and the CEO's growth team with a continuous and rigorous platform of growth opportunities, ensuring long-term success. To achieve positive outcomes, our team leverages over 60 years of experience, coaching organizations of all types and sizes across 6 continents with our proven best practices. To power your Growth Pipeline future, visit Frost & Sullivan at <http://www.frost.com>.

The Growth Pipeline Engine™

Frost & Sullivan’s proprietary model to systematically create ongoing growth opportunities and strategies for our clients is fuelled by the Innovation Generator™.

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Key Impacts:

- **Growth Pipeline:** Continuous Flow of Growth Opportunities
- **Growth Strategies:** Proven Best Practices
- **Innovation Culture:** Optimized Customer Experience
- **ROI & Margin:** Implementation Excellence
- **Transformational Growth:** Industry Leadership



The Innovation Generator™

Our 6 analytical perspectives are crucial in capturing the broadest range of innovative growth opportunities, most of which occur at the points of these perspectives.

Analytical Perspectives:

- **Mega Trend (MT)**
- **Business Model (BM)**
- **Technology (TE)**
- **Industries (IN)**
- **Customer (CU)**
- **Geographies (GE)**

