



2021

**Entrepreneurial Company of the Year**

Greater China

Clinical Research Organization (CRO) Industry

*Excellence in Best Practices*

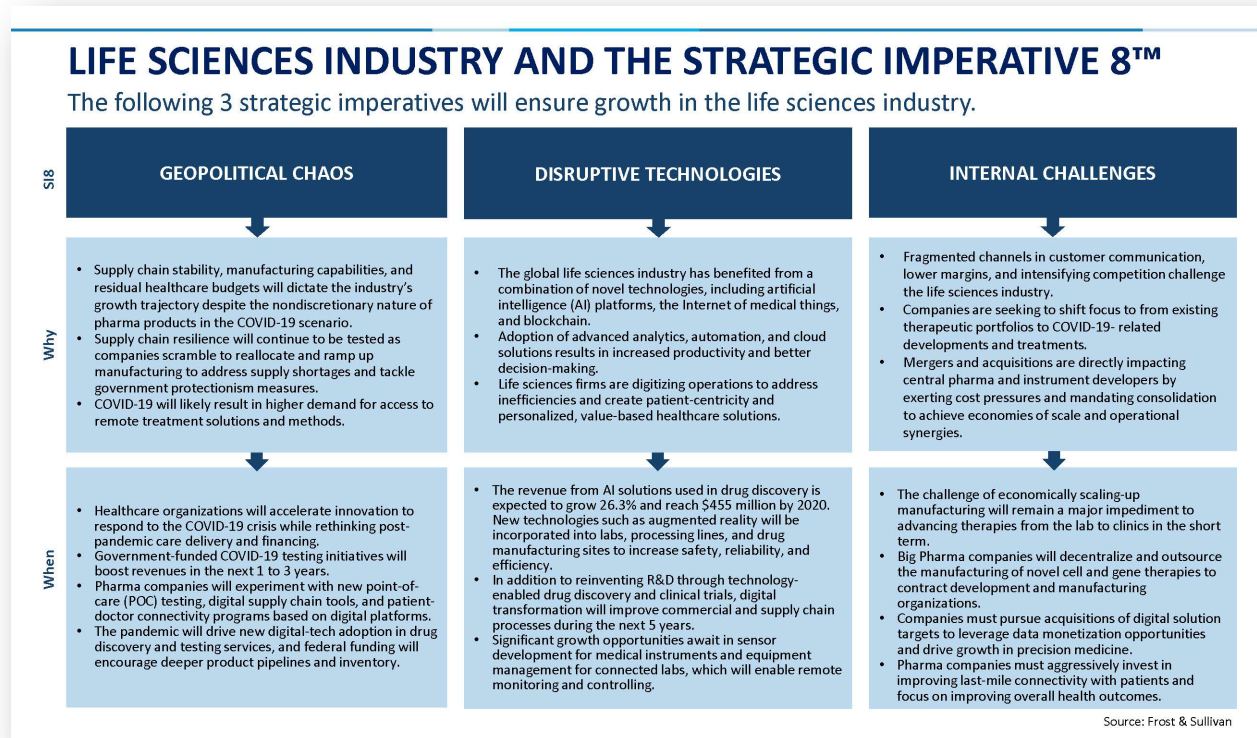


维亚生物科技控股集团

VIVA BIOTECH HOLDINGS

## Strategic Imperatives

Frost & Sullivan identifies three key strategic imperatives that impact the life sciences industry: geopolitical chaos, disruptive technologies, and internal challenges. Every company that is competing in the life sciences space is obligated to address these imperatives proactively; failing to do so will almost certainly lead to stagnation or decline. Successful companies overcome the challenges posed by these imperatives and leverage them to drive innovation and growth. Frost & Sullivan’s recognition of Viva Biotech Holdings is a reflection of how well it is performing against the backdrop of these imperatives.



## 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 companies. Viva Biotech Holdings excels in many of the criteria in the clinical research organization (CRO) space.

AWARD CRITERIA	
<i>Entrepreneurial Innovation</i>	<i>Customer Impact</i>
Market Disruption	Price/Performance Value
Competitive Differentiation	Customer Purchase Experience
Market Gaps	Customer Ownership Experience
Leadership Focus	Customer Service Experience
Passionate Persistence	Brand Equity

**Market Disruption and Competitive Differentiation**

China-based Viva Biotech Holdings is a preclinical drug discovery service provider that offers structure-based drug discovery (SBDD) services to global participants in the biotechnology and pharmaceuticals industries. Founded in 2008 as a highly specialized contract research organization (CRO), Viva Biotech delivered in the first half of 2020 more than 17,000 protein complex structures and investigated over 1,300 independent drug targets, positioning it as a leading participant in the field of drug discovery. In addition to its core SBDD services, the company provides an array of other cutting-edge technologies,

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**- Rathanesh Ramasundram, Associate Director, Frost & Sullivan**

such as protein science, fragment-based drug design (FBDD), affinity selection mass spectrometry, screening technology, and membrane protein-targeted drug discovery. Viva Biotech, therefore, serves close to 400 clients worldwide with comprehensive expertise in the early stages of preclinical research, earning the company revenue of ¥197.6 million in the first half of 2020.

*Unique equity for service (EFS) model sets Viva Biotech apart in the CRO Industry*

In addition to being a front runner in SBDD technology, Viva Biotech has distinguished itself through its innovative twin business model approach. The combination of traditional cash for service (CFS) and unique EFS models allows Viva Biotech to enjoy a steady cash flow from clients looking for drug discovery services and high yield returns from investments. Through its CFS model, which contributes to approximately 78% of its revenue, Viva Biotech covers various aspects of the client’s need for early stage drug discovery, including target determination, lead optimization, and drug candidate determination. Viva Biotech’s prowess in one of the most efficient and commonly used drug discovery techniques in the industry provides it with gross margins of more than 50% from its CFS services, as of 2019. On the other

hand, through its EFS model, the company provides drug discovery and incubation services to biotechnology start-ups across all indications and drug types. Frost & Sullivan considers Viva Biotech's

*“Viva Biotech has grown from being a company with small market capitalization into a mid-sized, client-centric, and technology-driven CRO. Through M&A and partnerships and by adopting a two-wheel driven model, Viva Biotech aims to become a comprehensive one-stop drug service platform provider.”*

*- Rathanesh Ramasundram, Associate Director, Frost & Sullivan*

commitment to be an investor or partner to start-ups as a highly innovative business model that differentiates the company.

Over the last five years, Viva Biotech has perfected its EFS model, creating an incubation platform that is distinctive and unrivalled by competitors in the CRO industry. While competitors focus on owning individual drug discovery pipelines or programs, Viva Biotech invests in companies and distances itself from the risks of failure associated with the drug discovery process. Investing in platform technology companies means Viva Biotech can access several assets instead of only one candidate pipeline. The company has established its Viva

BiInnovator (VBI), which is a department that acts as an open platform focusing on biopharmaceutical innovation, to create a synergistic ecosystem with many key participants in the research industry. With this, Viva Biotech can enter into in-depth cooperation and communication with portfolio companies and start-ups, thus selecting its EFS clients from a promising pool of candidates.

As of June 2020, Viva Biotech has reviewed 425 projects, incubated close to 60 companies, negotiated with over 100 potential biotech start-ups, and made 7 successful exits with more than a 200% return on investment (ROI). Viva Biotech is a pioneer in the CRO industry, in terms of offering EFS for early stage start-ups with high potential, and Frost & Sullivan commends Viva Biotech for demonstrating an astute entrepreneurial initiative and for being an example to competitors in the field.

### **Leadership Focus**

#### *Viva Biotech constantly strategizes for success*

Viva Biotech has grown from being a company with small market capitalization into a mid-sized, client-centric, and technology-driven CRO. The company reported a year-on-year (YoY) revenue growth of 38.9% in the first half of 2020 and envisions itself as a true cradle for biotechnology startups, achieving a market worth of \$10 billion in five years. Additionally, Viva Biotech aims to expand from being a CRO into a contract development and manufacturing organization (CDMO).

With the CDMO sector poised to profit from the increase in demand from the pharmaceuticals industry, Viva Biotech is constantly innovating and following trends in the global market. Through mergers and acquisitions (M&A) and partnerships and by adopting a two-wheel driven business model, Viva Biotech aims to extend its service coverage and offer a comprehensive one-stop drug service platform. Frost & Sullivan analysis has pinpointed M&A activities as a key market driver in the CRO industry, with Viva Biotech's expansion strategies as a testament to its entrepreneurial aptitude.

### *Passionate Persistence*

#### *Innovative business processes allow Viva Biotech to thrive in a competitive market*

Increased investments in the high-growth CRO market have led to intense competition, which requires novel approaches and high efficiency. Frost & Sullivan, therefore, applauds Viva Biotech's adoption of innovative business processes as the company strives to overcome growth obstacles in the market. In terms of research and development (R&D), Viva Biotech invested ¥22.3 million in the first half of 2020 and ¥45 million throughout 2019, contributing toward its introduction of new technology platforms and improvements to existing service offerings. Moreover, the company has established advanced computer systems, IP protection, and an internal control system to monitor operations remotely, in addition to enhancing the expertise of its business development teams in the United States and China.

Furthermore, Viva Biotech has made its presence known through active sponsorships and by participating in biotechnology-focused academic and investment summits and expositions. With regards to human resources, Viva Biotech remunerates its 798-strong workforce based on market conditions and on each employee's performance, qualifications, and experience. A competitive remuneration package allows Viva Biotech to overcome the challenges of talent retention, and the company provides training and support programs to enhance its employees' skill levels. This practice has resulted in an employee retention rate of 93.1%, indicating Viva Biotech's success as an employer in a competitive field.

#### *Maintaining Viva Biotech's upward growth momentum during the COVID-19 Pandemic*

Frost & Sullivan acknowledges Viva Biotech's persistence during the challenging COVID-19 pandemic. For example, despite the unprecedented obstacles during the pandemic, Viva Biotech increased its revenue by 38.9% in the first six months of 2020 and recorded a gross profit increase of 39.2%. By implementing pandemic containment measures and actively exploring new opportunities to accelerate the consolidation of R&D and the production service chain of the new drug industry, Viva Biotech has retained its upward growth momentum. The company has leveraged its proprietary technology in both international and domestic markets to procure revenue for its CFS business, resulting in an expanded customer base and increased secured orders. The CFS segment alone showed a YoY increase of 46.1%, reaching ¥150.4 million in revenue within the first half of 2020. From an EFS perspective, Viva Biotech looked beyond the borders of China and established relations with close to 60 educational institutions, research transformation centers, and investment institutions worldwide. As of June 2020, the company has added 10 startups to its portfolio companies, thus bringing its total portfolio start-ups to 56, with an average shareholding of 21.78%. These companies have stakes in various areas, including neurological disorders, metabolic diseases, and cancer, all of which add value to Viva Biotech's drug services.

Furthermore, Viva Biotech's BVI launched an online Demo Day in light of the pandemic to ensure continued communication so that EFS clients can interact with investment institutions and pharmaceutical enterprises, indicating its commitment to support its portfolio companies. To ensure it remains at the forefront of the CRO industry, Viva Biotech has attracted 30 new business partners who are top scientists worldwide, as of June 2020. Viva Biotech is evidently surviving the impact of the

COVID-19 pandemic through perseverance and by being proactive in seeking profitable opportunities within the CRO market.

### ***Price/Performance Value***

#### ***Viva Biotech is top ranked for its SBDD and cutting-edge technology***

Awarded China's Best Medical Service Listed Company 2019 and one of the Top 10 Public Companies 2019, Viva Biotech is known as a technical leader in protein science, biophysics, structural biology, G protein-coupled receptors (GPCR) crystallography, and other scientific technologies. During its conception over a decade ago, the company made a smart decision as a new market participant to start with highly specialized offerings. With most CROs already setting the scene through synthetic chemistry methods, Viva Biotech instead delved into SBDD and established itself as a technology expert. By focusing on SBDD, Viva Biotech can provide clients with first-in-class medicine discovery that is showing increased demand because of policy changes on generic drug development. In addition, Viva Biotech's use of SBDD can increase process efficiency by cutting the discovery time from an average of six years to three years, with almost 50% of the drugs discovered through SBDD successfully making it to the clinical trial phase.

In 2019, more than 300 companies worldwide chose Viva Biotech as their preferred SBDD technology provider, positioning it as a top-ranking company above its competitors. Instead of being complacent with its success in SBDD and the seven other world-leading technology platforms at its disposal, Viva Biotech is aggressively pushing the boundaries of its core technology. The company has invested in new technologies, such as cryogenic electron microscopy (Cryo-EM), hydrogen deuterium exchange (HDX) mass spectrometry, and computational chemistry, with the goal of expanding its services to include bio-macromolecules and biological detection. Moreover, Viva Biotech is expanding its business by acquiring 7,576 square meters of property in Shanghai and 33,607 square meters in Chengdu. The latter is for the construction of Viva Biotech's Chengdu Drug Incubation and Production R&D center. These facilities are expected to provide Viva Biotech with a stable premise for operations, thus ensuring that clients receive the best services and technology.

### ***Customer Ownership Experience***

#### ***Industry excellence creates a loyal customer base for Viva Biotech***

Through both its CFS and EFS business models, Viva Biotech has always supported its clients toward success in drug discovery. The company's specialization in such a highly demanded technology and dedication as a partner or investor have earned it a loyal customer base, as indicated by its 81% revenue from repeat clients. By actively communicating with clients and implementing a customer management system that conducts regular surveys, Viva Biotech constantly integrates client feedback.

The company has successfully built up a reputation with clients that relies on its success rate and R&D efficiency, instead of relying only on price point, allowing it to reap a gross profit of about ¥100.1 million in the first half of 2020. Moreover, Viva Biotech ensures customer loyalty by maintaining good relationships with clients through events, visits, and media platforms. In terms of its portfolio companies, Viva Biotech maintains its support through post-investment management, which includes

introducing talent, optimizing product pipeline development strategies, and providing aid for fundraising. Ultimately, Viva Biotech shows its commitment to provide the best in the industry and to add value to new participants in the biotech space.

## Conclusion

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Viva Biotech is a leading preclinical drug discovery service provider that has delivered more than 17,000 protein complex structures and investigated over 1,300 drug targets. With close to 400 clients worldwide, Viva Biotech has a reputation as a fierce competitor in the CRO market. The company's unique EFS model and excellence in structure-based drug delivery set it apart from competitors. Moreover, by implementing innovative strategies, Viva Biotech is surviving the impact of the COVID-19 pandemic and maintaining its success during these challenging times.

With its strong overall performance, Viva Biotech Holdings has earned Frost & Sullivan's 2021 Entrepreneurial Company of the Year Award in the Greater China CRO industry.

## What You Need to Know about the Entrepreneurial Company of the Year Recognition

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Frost & Sullivan's Entrepreneurial Company of the Year Award recognizes the best up-and-coming, potentially disruptive market participant.

### Best Practices Award Analysis

For the Entrepreneurial Company of the Year Award, Frost & Sullivan analysts independently evaluated the criteria listed below.

#### *Entrepreneurial Innovation*

**Market Disruption:** Innovative new solutions have a genuine potential to disrupt the market, render current solutions obsolete, and shake up competition

**Competitive Differentiation:** Strong competitive market differentiators created through a deep understanding of current and emerging competition

**Market Gaps:** Solution satisfies the needs and opportunities that exist between customers' desired outcomes and their current market solutions

**Leadership Focus:** Company focuses on building a leadership position in core markets and on creating stiff barriers to entry for new competitors

**Passionate Persistence:** Tenacity enables the pursuit and achievement of seemingly insurmountable industry obstacles

#### *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



