

*ACT Genomics Recognized for*

**2021**

**Product Leadership**

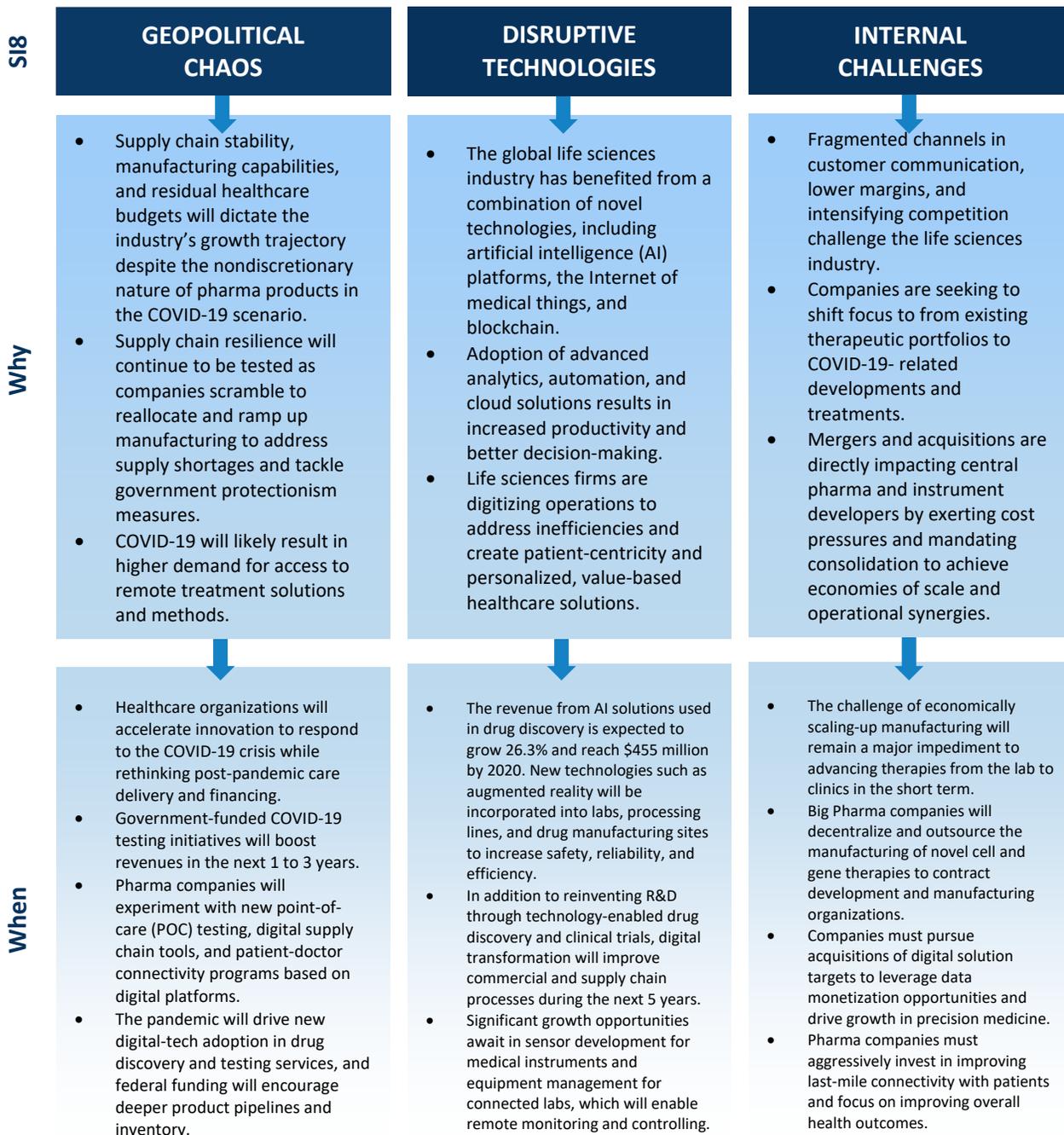
Asia-Pacific Clinical Oncology  
Next-generation Sequencing  
Workflow Solutions Industry  
*Excellence in Best Practices*



TURN GENOMICS INTO ACTION

## 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 ACT Genomics 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 company. ACT Genomics excels in many of the criteria in the clinical oncology next-generation sequencing workflow solutions space.

AWARD CRITERIA	
<i>Product Portfolio Attributes</i>	<i>Business Impact</i>
Match to Needs	Financial Performance
Reliability and Quality	Customer Acquisition
Product/Service Value	Operational Efficiency
Positioning	Growth Potential
Design	Human Capital

### **Match to Needs**

Asia-Pacific (APAC) is an enormous market for cancer diagnostics as most countries are not yet leveraging technologies such as next-generation genomic sequencing (NGS). The adoption rate is low in the region due to NGS' highly technical nature. However, medical healthcare spending is projected to rise as demand for higher-quality diagnostics services grows. Moreover, the incidence rates for cancer are generally high in most countries, with the exception of advanced countries such as Hong Kong and Singapore, due to a lack of quality diagnostics and treatment solutions. While hospitals in developed countries can conduct in-house molecular diagnostics for patients, resulting in a lower percentage of outsourcing, most hospitals and clinics in APAC require outsourcing to central labs and biotech companies.

Frost & Sullivan notes that genomic profiling is key to addressing Asian cancer patients' needs. With the help of local laboratories in Taiwan, Hong Kong, and Japan, ACT Genomics is integrating NGS technology into wet and dry labs to address APAC's hospital outsourcing needs. In addition to offering cancer

diagnostic tests that meet world-class quality standards, ACT Genomics is compiling and curating the largest Asian genomic cancer database to address prevalent cancer types in the population and ensure appropriate treatment.

### ***Positioning and Design***

There is a need for NGS education and promotion in many APAC countries as patients and clinicians often have a low level of awareness. The result is a low adoption rate for the technology by local oncologists, especially older physicians. Furthermore, a shortage of well-trained clinicians in the region is compounded by a patchwork of local legislation concerning diagnostics, biomarker criteria, and regulatory approvals. Consequently, there is a lack of consistent guidelines, standards, and requirements for laboratories and NGS services.

*“ACT Genomics, with the help of local laboratories in Taiwan, Hong Kong, and Japan, is integrating NGS technology into wet and dry lab data analysis applications to address APAC’s hospital outsourcing needs. By offering cancer diagnostic tests that meet world-class quality standards, in addition to compiling and curating the largest genomic cancer database addressing the Asian population, the company emerges as an industry standout.”*

***- Nidhi Jalali, Best Practices Analyst***

Due to its exceptional performance, ACT Genomics is the first Asian company to join the Friends of Cancer Research’ homologous recombination deficiency and tumor mutational burden (TMB) Harmonization Projects. The company has built the largest Pan-Asian NGS service network and successfully expanded it through technology transfer. ACT Genomics has obtained accreditation from the College of American Pathologists (CAP) for its labs in Taiwan, Hong Kong and its joint venture lab in Japan. As a result, it ensures high-quality standards, resulting in superior lab performance and a heightened product success rate. ACT Genomics also has one

of the Asia’s largest cancer genome databases, leading to exceptional clinical value and in-house bioinformatics. Furthermore, ACT Genomics is the first laboratory registered in Taiwan FDA's Laboratory Developed Tests and Services (LDTS) for Precision Medicine Molecular Testing. Its offerings include ACTOnco®, which provides comprehensive genomic profiling for 440 genes, TMB for immunotherapy resistance drugs, ACTHRD™, which provides a loss of heterozygosity rating, and ACTCerebra, the world's first panel using cerebrospinal fluid genomic profiling for brain tumor metastases in the field. Each NGS offering has been developed in-house by ACT Genomics.

ACT Genomics maintains the highest CAP requirements and leverages artificial intelligence (AI)-driven data analysis along with a proprietary algorithm. The company is in the process of seeking FDA and CE-IVD approvals for its core products and has obtained ISO 13485/27001/15189 accreditation. ACT Genomics has

a more diverse product selection, local laboratories, and robust on-the-ground sequencing support for clinicians and patients in comparison to its regional competitors. Frost and Sullivan finds that ACT Genomics has gained market share and an international reputation by enabling its technology transfer associates to achieve the same high quality and outcomes through its partner laboratories.

### ***Quality of Operational Efficiency and Reliability***

ACT Genomics partners with more than 200 APAC-based hospitals, 800 physicians, and 30 research institutes. To provide on-the-ground support, the company has local teams in Taiwan, Hong Kong, Japan, Singapore, Malaysia, Thailand, and the Philippines. It also conducts daily workshops and roundtable discussions on case sharing, technological updates, and new applications. To meet APAC-based hospitals' outsourcing needs, the company uses NGS technology in wet and dry lab data analysis applications.

The company maintains strong communication with clinicians via local sales support teams in seven countries, while its medical science liaison team helps with technical assistance and implementation. ACT Genomics' nursing team provides outstanding care while gathering patient feedback and, to monitor case progress, the company has created a consumer portal.

Most recently, Frost & Sullivan notes that gene chips, an innovative cancer diagnostic tool that allows for safe and successful point-of-care (POC) deployment in APAC, has been developed by the company. As evidenced by its ACTOnco offering, the company is a world leader in exceptional product creation and proven results. Furthermore, the company offers the highest performance rate for the least amount of DNA and patient samples due to its specialized know-how and process.

Overall, the company has established a strong reputation through its high-quality services and customer care. It also enjoys strong support from local governments, top universities, key opinion leaders, and Asian-based shareholders. Last but not least, the company has enlisted the support of local hospitals and the Molecular Tumor Board, further strengthening its relationships with consumers and clinicians.

### ***Growth Potential***

ACT Genomics aspires to have a strong local presence throughout APAC. Frost & Sullivan notes that ACT Genomics' gene chips open up a new global market for non-centralized laboratories and POC facilities in addition to providing reliable and cost-effective cancer diagnosis. Its cancer genomics database focused on the Asian population also opens up a new market for cancer genomics data for new drug development, especially for cancers common in Asia. It also allows for research into new cancer therapies such as immunotherapy. Moreover, the company's technology, data, and various research initiatives enable the

integration of other clinical data (such as imaging data) in patient information management systems globally.

ACT Genomics' technology can lower overall healthcare expenditures, including hospitalization costs, by facilitating early and accurate cancer detection and treatment, transforming global cancer management economics. Overall, ACT Genomics helps cancer patients live longer, reduces costs, and improves the quality of life by providing accurate and early genomics diagnosis.

In APAC, new market participants, including global and local pharmaceuticals, are raising the general awareness and understanding of cancer genomics diagnosis, resulting in a larger market. ACT Genomics is leveraging this development to expand into Vietnam, Indonesia, and China, with eventual sights in Europe and the United States. Moreover, its APAC-focused platform allows for the addition of new and affordable products (e.g., biomarkers) and multi-platform technology expansion such as intrahepatic cholangiocarcinoma, Flow, and polymerase chain reaction.

## Conclusion

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ACT Genomics' technology and next-generational sequencing products enable cost savings while improving cancer patients' quality of life and survival rate. The company's broad product range empowers clinicians with evidence-based and accurate data, enabling integrated and timely cancer diagnostics and services. Powered by its superior in-house bioinformatics capabilities, Asia's largest cancer genome database, and world-class quality standards, ACT Genomics is one of the region's leading service providers. Moreover, its products, laboratories, and partner laboratories meet the College of American Pathologists' robust standards.

With its strong overall performance, ACT Genomics earns Frost & Sullivan's 2021 Product Leadership Award in the Asia-Pacific clinical oncology next-generation sequencing workflow solutions industry.

## What You Need to Know about the Product Leadership Recognition

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Frost & Sullivan's Product Leadership Award recognizes the company that offers a product or solution with attributes that deliver the best quality, reliability, and performance in the industry.

### Best Practices Award Analysis

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

#### *Product Portfolio Attributes*

**Match to Needs:** Customer needs directly influence and inspire the product portfolio's design and positioning

**Reliability and Quality:** Products consistently meet or exceed customer expectations for performance and length of service

**Product/Service Value:** Products or services offer the best value for the price compared to similar market offerings

**Positioning:** Products serve a unique, unmet need that competitors cannot easily replicate

**Design:** Products feature innovative designs, enhancing both visual appeal and ease of use

#### *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

## 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 on-going growth opportunities and strategies for our clients is fuelled by the Innovation Generator™.

### 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 six 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)**

