



tatabiocenter

2013 European Gene Expression Profiling Services  
Customer Value Leadership Award



FROST & SULLIVAN



50 Years of Growth, Innovation & Leadership

## 2013 European Gene Expression Profiling Services Customer Value Leadership Award

### Frost & Sullivan's Global Research Platform

Frost & Sullivan is in its 50th year in business with a global research organization of 1,800 analysts and consultants who monitor more than 300 industries and 250,000 companies. The company's research philosophy originates with the CEO's 360-Degree Perspective™, which serves as the foundation of its TEAM Research™ methodology. This unique approach enables us to determine how best-in-class companies worldwide manage growth, innovation and leadership. Based on the findings of this Best Practices research, Frost & Sullivan is proud to present the 2013 Europe Customer Value Leadership Award in Gene Expression Profiling Services to TATAA Biocenter.

### Significance of the Customer Value Leadership Award

#### Key Industry Challenges Addressed by Leadership in Customer Value

Gene expression profiling is offered through a combination of technologies, such as microarray analysis, qPCR (quantitative polymerase chain reaction), next-generation sequencing and so on. These methods are continually evolving and play an important role in the discovery and development of new drug targets. This represents a huge opportunity for companies offering services in this area.

Real-time PCR is becoming a mature technique. Increasingly robust assays and a demand for high throughput have created a ripe market for PCR service providers. For long, this area has always focused on fast analysis time and increasing throughput.

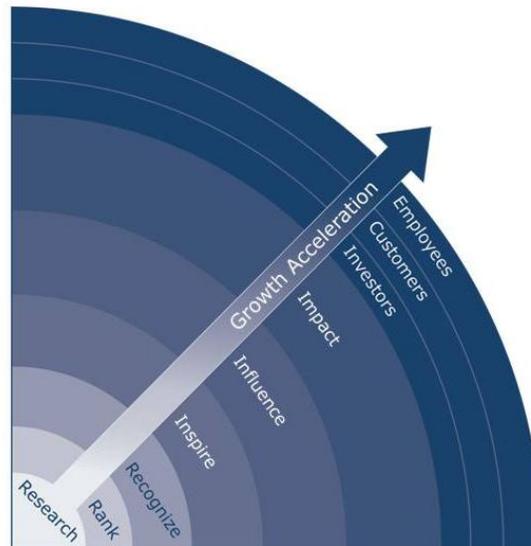
Within the European market, several such niche service providers exist who, often, find it very difficult to competitively position themselves in the market owing to pricing pressure. Although devising or offering services at a lower cost still remains an attractive strategy, it is, often, the experimental quality and the turnaround times that act as differentiating factors for these laboratories.

Service providers need to, therefore, constantly equip themselves with the latest technologies and update their knowledge warehouse to be able to provide befitting solutions to the customers with confidence. Upgrading the facility with latest technologies is crucial for building strong relationships with customers and also with vendors, wherein the center helps them during the process of product development.

The intellectual ability of technicians working at these service centers, are seriously important, as they perform most of the experiments and are solely responsible to deliver reproducible results.

It is, thus, essentially important for providers to either add multiple services or offer a broad line of services for nucleic acid analysis in order to be able to differentiate themselves from their competitors and successfully thrive in such a competitive market.

### Chart 1: Best Practices Leverage for Growth Acceleration



### Best Practice Award Analysis for Tataa Biocenter

The Frost & Sullivan Award for Customer Value Leadership is presented each year to the company that has demonstrated excellence in implementing strategies that proactively create value for its customers with a focus on improving the return on the investment that customers make in its services or products. This award recognizes the company's inordinate focus on enhancing the value that its customers receive, beyond simply good customer service, leading to improved customer retention and ultimately customer base expansion.

### Tataa Biocenter's Performance in Gene Expression Profiling Services

TATAA Biocenter offers a full range of services for nucleic acid extraction, analysis and profiling, using qPCR and microarray technologies. The facility is known for its highly advanced infrastructure and trained laboratory personnel. It is one of the very first laboratories to gained ISO/IEC 17025:2005 flexible certification for qPCR analysis in Europe and recognition at an international level. Its wide range of industrial collaboration helps it constantly keep itself updated with the latest technologies and provide insightful approach to build up its extensive services expertise on the changing market needs and customer preferences. Most of its customers draw advantage from its offerings/services, as they are highly customer centric.

## Key Performance Drivers for Tataa Biocenter

The center has been developing best practices for qPCR experiments. With support from various reagent and instrument companies in Europe and worldwide, the center organizes seminars, as well as offers assay design, analysis, and is known for its top-quality results. The center has more than a decade of experience in Europe and has various customers pointing out excellence in the quality of courses it offers and the experimental design set up. The facility has the choicest of the technology and instrumentation, and has a broad array of PCR instruments from all leading vendors in the market.

The center has exhibited excellence in its ability to perform applications, such as gene expression analysis, SNP (Single Nucleotide Polymorphism) analysis, digital PCR, immuno PCR, miRNA analysis, and CNV (Copy Number Variation) analysis. Besides qPCR, the center also provides microarray analysis, protein profiling and biostatistical analysis. The center has extensive experience in the extraction of nucleic acids (RNA, miRNA, DNA) from a wide range of sample types derived from a great variety of organisms, and is the Swedish representative in the European consortium called SPIDIA that develops guidelines for the preanalytical steps in biomolecular analysis.

### Co Factor 1: Broad Line of Services

TATAA Biocenter offers a full range of services for analyzing genetic material, ranging from qRT-PCR to nucleic acid extraction, and sample preparation. Its services are also sometimes coupled with hands-on training courses and commissioned research services, such as offering assistance during experimental design and performing validation of kits, reagents and instruments of key vendors in the market.

By offering multiple services such as extraction and purification of RNA, miRNA, DNA and protein, qPCR analysis, microarray analysis, protein profiling and biostatistical analysis, TATAA Biocenter has been able to retain and also attract new customers every year. To perform and avail all these services, the customer also has the right to choose from a wide range of instruments available from the most reputed vendors, such as Roche, Life Technologies (now a part of Thermo Fisher Scientific), Qiagen and Fluidigm.

### Factor 2: Service Quality

Owing to its highest accreditation by ISO/IEC 17025:2005, the laboratory is all set to meet both technical competence and management system requirements. The CEO of TATAA Biocenter, Mikael Kubista, is also a co-author of the MIQE guidelines. Minimum Information for Publication of Quantitative Real-time PCR Experiments (MIQE) was published in 2009. This project was led by 12 academic institutes and 12 scientists, and has been cited in articles and journals nearly 1650 times since its publication.

TATAA Biocenter is Europe's leading provider of molecular testing services. The center ensures that it validates the use of kits and reagents prior to offering services using the vendor's products. For instance, expression profiling is offered by using high throughput platforms from Life Technologies (the QuantStudio™ 12K Flex system), Fluidigm (BioMark™) and Roche (LightCycler® 480 System). MicroRNA profiling is performed using PCR kits and microarrays from reputed vendors like Exiqon and Toray, who are pioneers in this space. Digital PCR is offered through the products of Life Technologies. Saliva extraction is done by using innovative collection tubes offered by DNA Genotek. Microarray and protein profiling are offered through products from companies Toray and Olink bioscience. For sample preparation, top market players in this space like Qiagen and Thermo Fisher Scientific offer products to TATAA Biocenter. Frost & Sullivan research confirms that Tataa biocenter is the only company that adheres to high quality standards in comparison to its competitors in Europe.

### **Factor 3: Educational Programs of World-class Standards:**

Trainees and technicians, who have attended the courses offered by TATAA Biocenter, have cited its programs as some of the best courses offered in the world. Frost & Sullivan's research also revealed that the attendees were immensely happy with the center's offerings and lecture programs that are offered throughout the year. TATAA Biocenter offers informative programs such as multiplex PCR, single cell analysis, digital PCR, quality control techniques while using qPCR, along with experimental work, which are always appreciated and received well amidst its customers. Designing assays, quality control of qPCR experiments, sample preparation and what one can do to derive highest quality results are, often, the areas they cover as a part of the different workshop modules that they offer. The center also enables its customers to design and optimize the setup costs and improve the output of results. TATAA Biocenter's training programs include qPCR training at world-class standards, and has tie ups with international organizations and are also recognized by these bodies, such as EMBO, FEBS, the Howard Hughes Medical Institute, UNESCO and Pittcon. Such accreditations make its educational programs trustworthy and of high value.

### **Factor 4: Core Infrastructure**

The center houses all the cutting-edge technologies for experimental purpose. TATAA Biocenter is a one-stop facility to perform all the steps, starting from sample preparation and extraction to qPCR and data analysis. It has all the equipment that one can leverage to reduce its expenditure on new equipment/reagent purchase and, at the same time, reap quality results. The technology park is centered in Göteborg, Sweden, and is the most advanced park in Europe, with 10 real-time PCR thermal cyclers from leading brands and also has the capacity to support high throughput extraction and quality control.

Access to top-notch instruments is not the only attractive feature about TATAA Biocenter. The center also aims to disseminate knowledge on state-of-the-art technologies and

know-how related to nucleic acid analysis to academic researchers. The center offers seamless workflow from storage of sample, extraction, qPCR, analysis and downstream application. Individual facilities for each of the workflow processes eliminate the risk of contamination. The established facility has always attracted customers from overseas to use its infrastructure and leverage the expertise of its experienced personnel.

### **Conclusion**

Frost & Sullivan opines that TATAA Biocenter is best positioned to offer the most comprehensive range of services pertaining to nucleic acids. Key reasons for its superior performance include the strength of its offerings and renowned educational programs, highest quality of service, strong vendor partnerships and infrastructure capabilities, and the overall acumen of its personnel. Frost & Sullivan believes that the center is poised for continuous success in the European gene expression profiling services market.

Frost & Sullivan presents TATAA Biocenter with the 2013 Customer Value Leadership Award in recognition of its ability to deliver best-in-class services to its customers and partners in the European Gene Expression Profiling Service Market.

### **The CEO 360-Degree Perspective™ - Visionary Platform for Growth Strategies**

The CEO 360-Degree Perspective™ model provides a clear illustration of the complex business universe in which CEOs and their management teams live today. It represents the foundation of Frost & Sullivan's global research organization and provides the basis on which companies can gain a visionary and strategic understanding of the market. The CEO 360-Degree Perspective™ is also a "must-have" requirement for the identification and analysis of best-practice performance by industry leaders.

The CEO 360-Degree Perspective™ model enables our clients to gain a comprehensive, action-oriented understanding of market evolution and its implications for their companies' growth strategies. As illustrated in Chart 5 below, the following six-step process outlines how our researchers and consultants embed the CEO 360-Degree Perspective™ into their analyses and recommendations.

**Chart 2: The CEO's 360-Degree Perspective™ Model**



**Critical Importance of TEAM Research**

Frost & Sullivan’s TEAM Research methodology represents the analytical rigor of our research process. It offers a 360-degree view of industry challenges, trends, and issues by integrating all seven of Frost & Sullivan's research methodologies. Our experience has shown over the years that companies too often make important growth decisions based on a narrow understanding of their environment, leading to errors of both omission and commission. Frost & Sullivan contends that successful growth strategies are founded on a thorough understanding of market, technical, economic, financial, customer, best practices, and demographic analyses. In that vein, the letters T, E, A and M reflect our core technical, economic, applied (financial and best practices) and market analyses. The integration of these research disciplines into the TEAM Research methodology provides an evaluation platform for benchmarking industry players and for creating high-potential growth strategies for our clients.

**Chart 3: Benchmarking Performance with TEAM Research**

### About Frost & Sullivan

Frost & Sullivan, the Growth Partnership Company, enables clients to accelerate growth and achieve best-in-class positions in growth, innovation and leadership. The company's Growth Partnership Service provides the CEO and the CEO's Growth Team with disciplined research and best-practice models to drive the generation, evaluation and implementation of powerful growth strategies. Frost & Sullivan leverages 50 years of experience in partnering with Global 1000 companies, emerging businesses and the investment community from more than 40 offices on six continents. To join our Growth Partnership, please visit <http://www.frost.com>.