

TECAN: ENABLING THE DISRUPTION OF LIFE SCIENCE AND DIAGNOSTICS

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At a recent visit to our New York office, Achim von Leoprechting, the new CEO of Switzerland-based **Tecan**, shared how the Swiss company's technology is helping to revolutionize the life sciences industry. Following our conversation, we remain bullish on the long-term growth outlook for this market leader in lab automation for life science and research organizations. What does the company do exactly? Tecan provides the chassis, nuts, and bolts that enable **genomic research** and drug discovery—two of the fastest growing trends in healthcare.



During our discussion, Achim described how his NuQuant technology can reduce the time to analyze a DNA sample from the current status quo of several hours down to just six minutes. This is only one example of the company's list of innovations that have disrupted its field in the past year. A clear technology and market leader in lab process automation, Tecan is a member of both the **ROBO Global Robotics & Automation Index** and **ROBO Global Healthcare Technology & Innovation Index**.

THE RAPID GROWTH OF GENOMIC SCIENCE

The discovery of genome sequencing in 2003 created a wide berth for new scientific discoveries. The human genome, which contains an individual's genes, is made up of over three billion genetic letters. Genome sequencing is the process in which a high-powered machine analyzes a blood or saliva sample to determine the order of these genetic letters in a specific human. Although the sequence alone doesn't reveal everything about the genetic makeup of a subject, it provides a shortcut to help scientists locate and understand specific genes. This data can be used to research a person's ancestry, genetic health risks, and food intolerances, and to determine whether they are a carrier of inherited conditions and which treatments would be most effective to treat their illness.

Both consumers and life science companies are driving an exponential increase in demand for genome sequencing. Since 2014, the number of samples collected for analysis has increased more than tenfold, from one million samples in 2014 to 12 million in 2018. This volume is expected to more than double by 2022, and as many as 97 million samples

are expected to be collected by 2025. One reason for that rapid rise: technology and scale have dramatically reduced the cost of genome sequencing—from between \$550M and \$1B in 2003 to less than \$1,000 today. With further technology and innovation, that cost could drop to under \$100 in just a few years.

TECAN: DRIVING THE EVOLUTION OF GENOME SEQUENCING

This combination of lower costs and greater demand is creating a boon for Tecan. Scientists are constantly discovering more ways to analyze the human, and genomics only represents a small, albeit fast growing, part of biological discovery. The world has barely scratched the surface of this science, and the life sciences industry is hungry for more specimens and more data, so they can develop more treatments. All of this demand is driving the need for more capacity and efficiency in the scientific process. This is where companies like Tecan come into the picture.

Specifically, Tecan provides the automation instruments and reagents (the substances used in the chemical

analysis of the genes) to analyze specimens, develop new genome tests, and create new analysis procedures. Once developed, clients may decide to productize this new method, and sell it to the medical field to use as a test on their patients. That is extremely complicated, because new scientific procedures must be FDA approved before they can be marketed and used in a lab to diagnose humans. Further, many organizations don't have the bandwidth or experience in commercializing scientific products. With 30 years of experience in diagnostic research and commercialization, as well as extensive regulatory heavy lifting, Tecan helps its clients transition successful scientific discoveries into commercialized, FDA-approved products.

Lonza, one of the largest manufacturers of biologics products, used Tecan's **Freedom EVO® platform** to develop an endotoxin test, then partnered with Tecan to develop and manufacture a fully automated robotic solution for endotoxin detection. Lonza now sells this platform commercially under the brand **PyroTec**. Another example is **GenePaint**, which automates the staining of tissue samples on slides. **Agilent**, another biotech giant, partnered with Tecan to manufacture and market GenePaint on its **Dako Omnis staining platform**.

USER SPOTLIGHT: AMBRY GENETICS

Ambry Genetics conducts genetic screening for hereditary cancer. In 2007, the company became the first molecular diagnostic company to use next generation sequencing, using it to collect and analyze blood and saliva samples to identify genetic mutations and whether they are benign or harmful. To decrease turn-around times for these sensitive and potentially life-saving results, Ambry set out to automate its processes. After evaluating the options on the market at the time, the company selected Tecan's **EVO® platform** for its scalability, ease of use, and quick installation. Using EVO, Ambry was able to increase capacity by three times, and saw a 25-100% increase in the number of samples employees could process in a week.

Building on that success, Ambry began building a new super lab in 2016. Once again they evaluated multiple vendors, and selected Tecan's **Fluent® solution**, because it offered the largest debt capacity and the greatest range of robotic arm movement to increase productivity. Using this solution, Ambry was able to cut its average turnaround time—from 21 days to just 10-14 days. The solution also increased capacity by an additional 4x. This substantial increase in capacity ultimately led to the company's 2017 acquisition by Konica Minolta in a \$1B transaction.

Most recently, Ambry became one of the first users of Tecan's Introspect™ software. This resulted in an improvement in throughput, and a 63% increase in productivity. Today, Ambry has as many as 50 Tecan instruments supporting its business.

A STRONG INVESTMENT OPPORTUNITY

Tecan's strong value proposition and favorable market dynamics make for a compelling investment story. Lab instruments and reagents are a highly competitive business, but the ability to help a client design, manufacture and commercialize their discovery is a strong differentiator for Tecan. We believe clients will continue to seek partnerships with vendors that can not only help them develop new technologies, but market them as well. This strategy also benefits Tecan's average customer lifespan, enabling them to land and expand within one client, and continue to generate revenue through these partnerships during the entire life cycle of the clients' new products. Tecan's **recent acquisition** is expected to drive recurring revenue. As this grows, we expect increasing visibility on future revenue.

Multiple drivers give us confidence that Tecan can achieve its growth targets. The company's growth target is in the mid to high single digits, driven by five pillars, including 1) continuing to focus its strengths on its fastest growing applications: genomics, cell biology, and mass spectrometry; 2) expanding its product offering of systems, consumables, and reagents; 3) expanding existing relationships by cross-selling additional products, and facilitating client transitions from research to the commercial landscape; 4) expanding globally, particularly in China; and 5) through inorganic growth. Tecan is currently in the cash position to invest several hundreds of millions in M&A. The company will continue to evaluate inorganic growth targets, ranging from small bolt-ons to larger transformational acquisition opportunities.

We anticipate these strengths to continue to make Tecan an important component of the **ROBO Global Robotics & Automation Index** and **ROBO Global Healthcare Technology & Innovation Index**.