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Life Technologies

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Introduction

Life Technologies Corporation stands as a remarkable emblem of American innovation, enterprise, and scientific progress. As a biotechnology company that grew from humble beginnings to become a global leader in life sciences, Life Technologies' journey reflects the vibrancy and complexity of the entire biotech industry. The company's narrative encompasses the trajectories of its many forerunners—Grand Island Biological Company (GIBCO), Bethesda Research Laboratories (BRL), Invitrogen, and Applied Biosystems—each contributing research, resources, and breakthroughs that fundamentally transformed laboratory science and clinical discovery.

This book aims to trace the rich history of Life Technologies, charting its evolution from the production of essential laboratory reagents to its status as a key S&P 500 corporation. Its story is one of continuous reinvention, marked by a sequence of high-profile mergers and strategic acquisitions. By following the company's arc—from its early days delivering cell culture products to researchers in Chagrin Falls, Ohio, to its role in creating end-to-end solutions for laboratories worldwide—we gain insight into the dynamic forces that have propelled American scientific enterprise on the global stage.

Central to the Life Technologies story is a relentless commitment to scientific advancement. The company's investments in groundbreaking technologies—ranging from DNA sequencing platforms to powerful analytical tools—helped unlock new frontiers across genomics, proteomics, and cell biology. Alongside its portfolio of industry-defining brands, Life Technologies provided researchers with the means to ask bigger questions and, crucially, to secure transformative answers. This legacy fueled innovation not only within the walls of laboratories, but in fields as diverse as medicine, agriculture, environmental science, and forensic analysis.

Yet, the significance of Life Technologies extends beyond its commercial successes and technological impact. The company maintained a steadfast emphasis on corporate social responsibility, actively fostering the spirit of scientific curiosity in society at large and investing in programs designed to encourage future generations of explorers. By supporting initiatives in education, health, and public engagement, Life Technologies reinforced the central role that science plays in addressing humanity's greatest challenges.

The acquisition by Thermo Fisher Scientific marked both an end and a new beginning—integrating Life Technologies' strengths into a broader platform while ensuring its pioneering innovations would continue to benefit researchers and communities far into the future. This transition serves as a testament to the enduring

influence of its people, products, and principles, preserved in the ongoing work of the Life Sciences Solutions division.

As we embark on this exploration of Life Technologies, we delve not just into the timeline of a corporation, but into the heart of modern biotechnology itself. This book hopes to illuminate the milestones, controversies, and transformations that defined its journey—and, in doing so, to celebrate the enduring impact this American company has made on science and society worldwide.

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CHAPTER ONE: The Origins of GIBCO and BRL

The narrative of Life Technologies, like many great American success stories, begins not with a grand corporate strategy, but with foundational scientific pursuits and entrepreneurial spirit. Its earliest roots are traced back to the year 1962, amidst the quiet farmlands of Grand Island, New York. It was here that the Grand Island Biological Company, or GIBCO as it became widely known, was established. GIBCO's initial focus was quite specific: the production of serum, a vital component in cell culture, harvested from horses raised on their own land.

At its inception, GIBCO's operations were modest, even starting in a garage before quickly expanding into a proper laboratory. This humble beginning belied the significant impact the company would soon have on the burgeoning field of biological research. Serum, particularly fetal bovine serum (FBS), became an indispensable ingredient for growing and maintaining cells in laboratory settings, a fundamental technique for virtually all biological studies. GIBCO's dedication to providing high-quality serum quickly established them as a reliable supplier in the scientific community.

The 1960s saw GIBCO make steady progress. By 1964, they were already culturing the first stem cells, a testament to their early engagement with cutting-edge biological advancements. A year later, in 1965, GIBCO consolidated its serum and dry powder media production at its Grand Island facility, streamlining operations and further solidifying its position in the market for cell culture materials. This early period laid the groundwork for GIBCO's eventual reputation as a leader in cell culture solutions.

As GIBCO matured through the 1970s and early 1980s, the landscape of biological research was undergoing a rapid transformation. The discovery and increasing understanding of DNA and RNA, and the development of recombinant DNA technology, ushered in the era of molecular biology. This shift created a demand for new and specialized reagents to manipulate and study genetic material. Enter Bethesda Research Laboratories (BRL).

Bethesda Research Laboratories was founded in 1975, emerging as a key player in this exciting new field. Unlike GIBCO's initial focus on cell culture, BRL was established with an eye towards the rapidly evolving body of knowledge known as molecular biology. The company quickly became known as a manufacturer of enzymes and other products essential for the manipulation of DNA. These were the tools that scientists needed to cut, paste, and amplify DNA, fundamentally changing how biological research was conducted.

The complementary nature of GIBCO's cell culture expertise and BRL's molecular biology prowess made a merger an almost natural progression. In 1983, a pivotal moment arrived for both companies when GIBCO merged with Bethesda Research Laboratories. This strategic consolidation created a new entity: the original "Life Technologies, Inc." (LTI).

The newly formed Life Technologies, Inc. initially established its headquarters in Chagrin Falls, Ohio. This merger brought together two distinct but increasingly interconnected branches of life science research. GIBCO contributed its established leadership in cell culture media, sera, and reagents, essential for growing the cells that molecular biologists often studied or used as hosts for their genetic manipulations. BRL, on the other hand, brought its innovative molecular biology reagents, providing the precise tools needed for genetic analysis and manipulation.

By 1985, just two years after the merger, the synergy between GIBCO and BRL was evident in Life Technologies, Inc.'s rapidly expanding product portfolio. The company produced over 3,000 products, catering to a diverse range of applications, including scientific and medical research, diagnostics, biotechnology, and various industrial applications. This rapid diversification underscored the foresight of the merger, positioning the nascent Life Technologies, Inc. as a comprehensive supplier for a wide array of life science needs.

The financial backing for this newly formed entity was significant. Dexter Corp., a specialty materials manufacturer, played a crucial role, holding a 64% stake in Life Technologies, Inc. at its inception. By 1995, Dexter Corp. maintained a substantial ownership, holding 53.8% of the company. This financial partnership provided stability and resources for Life Technologies, Inc. to continue its growth and expand its influence within the burgeoning biotechnology sector.

The combination of GIBCO's legacy in cell culture and BRL's innovation in molecular biology provided Life Technologies, Inc. with a robust foundation. This early period was characterized by a rapid response to the evolving needs of the scientific community, supplying essential reagents and tools that were becoming indispensable in laboratories around the world. The stage was set for Life Technologies, Inc. to become a significant force in the advancement of life sciences.

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