

- **Our History & Mission**

Quallion LLC's mission is to develop and manufacture "QUALity Lithium ION" rechargeable power sources for unique and challenging applications. Our founder, Dr. Alfred E. Mann, established the company and set this mandate after many years of looking for a reliable power source for his medical device companies. Dr. Mann, well known for founding over ten successful technology companies, is considered one of the most successful entrepreneurs in the biomedical industry. Having launched a number of medical device companies, however, he continued to face an ongoing concern: how to find a safe, reliable, long-life rechargeable power source that could be implanted into patients. Given the unique tolerances and operating conditions associated with an implantable battery, this was no simple challenge. Unable to find a source that could meet his demanding requirements, Dr. Mann finally resolved to build the batteries himself, and in 1998 he founded Quallion LLC.

- **Our Leadership**

Faced with the compelling technical hurdles associated with building a company that could produce battery solutions for his varied medical applications, Dr. Mann addressed the problem by building a core competency in battery technology. Dr. Hisashi Tsukamoto, one of the first people in the battery field to propose a lithium ion based power system in the 1980s, was brought on board to lead the company in meeting this challenge. Drawing on his over 20 years experience in developing advanced lithium ion battery systems, Dr. Tsukamoto quickly assembled a team of experienced battery engineers with expertise in battery mechanics, chemistry and process design. With the fundamentals in place, Quallion was ready to revolutionize the battery industry.

- **Our Strategy**

Employing a strategy based on superior products and unsurpassed customer service, Quallion has been able to solve a broadening range of customer problems from size constraint to biosafety and compatibility issues with wireless recharging. Throughout the entire cycle from concept to production, Quallion associates interact on a one-to-one basis with its customers, listening and detailing their needs, involving them in product design and prototype verification, educating them in technology development and keeping them abreast of production schedules. In this way, Quallion is able to ensure that product development synchronizes with each customer's timeline and that the final product meets all delineated specifications.

- **Our Products**

Five products are currently in production, two of which are for implantable applications. Modeled after FDA QSRs and ISO 9000, our quality manufacturing system is designed to meet the high reliability criteria of medical device companies with 100% component and process traceability. All products undergo rigorous in-process checks and inspections

using state-of-the-art technology and proprietary processes in micro-leak detection and electrical testing prior to receiving the final quality seal of approval.

- **Our Operations**

Based in Sylmar, California, the company, which started with only two scientists in 1998, has more than doubled in size every six months. Today the company employs more than 100 people supporting engineering, operations and research and development. Behind the scenes, performing thousands of tests per day or making daily decisions on design, quality and engineering, is a group of spirited, determined and talented people united by the conviction to develop and market superior products to empower our customers and therein empower life. With state-of-the-art facilities, Quallion continues to grow and expand its operations and product lines.

- **Our Future**

With fertile ground for developing breakthrough technologies and backed by an incomparable culture, Quallion is poised to continue its mission: To push beyond the existing technology envelope and develop superior custom and high reliability rechargeable lithium technology that would enable our customers to achieve advanced power capabilities.

While some of our products are already on the market, the company is moving forward with a new series of highly reliable miniaturized rechargeable lithium batteries. Last year, Quallion was awarded an \$8.4 MM grant by the government under the Advanced Technology Program (ATP) to develop an advanced implantable miniature battery capable of being recharged from outside the body with no physical connections. This miniature battery will incorporate a special pin-shaped design, polymeric electrolyte with advanced material and integrated circuitry for battery safety management. Such a power source will open up a whole new class of implantable devices that use electrical stimulation to treat diseases such as urinary urge incontinence, limb paralysis and sleep apnea.

In addition to specialty products for biomedical applications, Quallion is also developing new battery designs for use in space-based operations and other special applications.

- **More About Us**

Quallion LLC is located at 12744 San Fernando Road, Sylmar, California 91342. For more information about our company and products, please contact Wendy Fong at 818.833.2000 or email us at info@quallion.com.

Last updated: October 2001.

All information contained herein is the property of Quallion LLC.