



Pathfinder Therapeutics

Nashville, TN

<http://pathsurg.com>

Pathfinder Therapeutics is dedicated to improving patient outcomes by bringing increased precision and accuracy to abdominal surgical procedures. The company has developed a GPS system for abdominal surgery. With the Pathfinder Explorer navigation system, two-dimension, pre-operative medical images are converted to 3D images and a pre-operative plan, or “map,” is generated. As the surgeon moves the instruments during the procedure, the camera and computer convey the precise location of those instruments on a monitor on 3D images of the anatomy. This provides the surgeon with better visualization and important information to enhance the surgical procedure and improve patient outcomes. The Explorer navigation system is current FDA-cleared for use in open liver surgery, where better guidance is needed to resect (cut) or ablate (burn) liver tumors.

Luminetx

Memphis, TN

<http://luminetx.com>

Based in Memphis, Tenn., Luminetx, a division of Christie Medical Holdings, Inc., discovers, develops and commercializes medical technologies. The company’s market-leading product, VeinViewer[®], is a mobile vascular imaging system that allows health care providers to clearly see accessible vasculature in real time directly on the surface of the skin. VeinViewer is available in more than 40 countries worldwide. Christie Medical is owned by Christie Digital Systems USA, Inc., a global visual technologies company and is a wholly-owned subsidiary of Ushio, Inc., Japan.

Hybrid Wheel Motor

Murfreesboro, TN

Website Not Available

A collaboration between Dr. Charles Perry of Middle Tennessee State University and Dr. Ali Alouani of Tennessee Technological University, the hybrid wheel motor relates to the application of plug-in hybrid operation to automobiles that are not equipped with plug-in hybrid capability from the original manufacturer. The addition of retrofit plug-in hybrid components would add plug-in hybrid operation to any automobile, thus reducing the energy from the internal combustion engine by augmenting with electrical energy from the grid. The prototype could potentially save U.S. consumers 120 million gallons of fuel daily. The device is an economical retrofit kit, easily adaptable to existing fleet on the road.

Aldis**Oak Ridge, TN****<http://www.aldiscorp.com>**

Aldis Inc., is a cleantech company specializing in vision-based technologies for intelligent traffic system management and advanced infrastructure solutions. The company develops and markets efficient traffic solutions to state and municipality partners utilizing the advanced intelligent traffic management technology, GridSmart™. GridSmart traffic solutions include Spectra 360™, designed for intersection traffic management utilizing video tracking. Optima 360™, which adds support for vehicle counting data and pedestrian handling and Ultra 360™ (available in 2010), which will provide complete intersection management including features such as adaptive retiming and dilemma zone functionality. The 720 series is available for all GridSmart versions and provides video tracking by utilizing two cameras for larger intersections, tunnels and bridges. Additional products include Xpress™, traffic management for freeway and ITS applications and Centrex™, providing counting and management for parking structures.

TrakLock Corporation**Knoxville, TN****<http://traklok.net>**

Formed in 2008, TrakLok Corporation is a products and services company that provides solutions to secure and globally track intermodal shipping containers. The company's initial two products, GeoLok™ TrakLog™, are the foundation for a cradle-to-grave cargo tracking and security intermodal tracking and management system™ that will increase the security of containers while maximizing efficiency of movement and storage.

eSpin Technologies**Chattanooga, TN****<http://espintechnologies.com>**

eSpin Technologies, Inc., is a high-tech manufacturing company based in Chattanooga, Tenn., and is a leader in polymeric nanofiber manufacturing. eSpin's nanofibers are 20-200nm in diameter (about 1,000 times smaller than a human hair), have a very high surface-area-to-mass ratio, and can be formed into membranes with very high porosity. The company is currently supplying nanofibers for clean room products, nanocomposites, filtration, surgical gowns, biomedical devices and specialty fabrics, among others. eSpin's global partners include Fortune 500 corporations, government and military laboratories, research institutions, and select high technology companies around the world. The company also recently won grants from the National Science Foundation and the Department of Energy for continued development of nanofiber technology.

Life Changing Chair**Rogersville, TN****<http://lifechangingchair.com>**

The Life Changing Chair is a Ground Reaching Enabling Anti Tip-over (GREAT) wheelchair for any handicapped person. Co-invented by Ed Johnson and Phil Brown, the GREAT wheelchair features improved design and mobility over a standard wheelchair. The chair is powered by 27 rechargeable batteries and good for a full day of constant use. Johnson and Brown built the first prototype of the GREAT wheelchair in 2006, featuring adjustment from a sitting position to go-kart position in 20 seconds.

Soltility**Franklin, TN/ Friendsville, TN****<http://www.soltility.com>**

Soltility provides design, financing, installation, monitoring and maintenance of solar installations. The company also provides customers with energy through the initiation and administration of power purchase agreements. Soltility covers a 13-state area in the Southeast/South Central United States with 15 team members. The company was started by Ken Elder of Friendsville, Tenn., and Tracy Dye of Franklin, Tenn., in January of 2007. Ken is originally from Texas and his background is in physics and IT, while Tracy is originally from Florida and comes from a background of aerospace and IT. Ken has degrees from the University of Texas, and Tracy graduated from MTSU's Aerospace Program.

Thermal Transfer Composites**Chattanooga, TN****<http://thermaltc.com>**

Thermal Transfer Composites, LLC (TTC), is a manufacturer of thermal management products for high-performance, high-reliability electronic applications. The company was founded in Chattanooga, Tenn., in February 2004. TTC is a supplier to many of the major defense and aerospace companies in the U.S. and Europe, including Lockheed/Martin, BAE Systems, Northrop/Grumman, Raytheon, Selex, EADS and International Rectifier. In the next six-to-12 months, the company plans a major transition of its offerings into several high-volume, high-growth commercial markets, such as insulated-gate bipolar transistor module base plates, alternative/green energy systems, telecom, LED and laser diode power-device heat spreaders.

J&S Utility Consultants**Pleasant Shade, TN****Website Not Available**

Formed in 1999 by Penny Allds, J&S Utility Consultants provides water storage tank quality and inspection services to the drinking water industry. In 2001, J&S introduced the remotely operated vehicle as a solution to the water tank inspection process for the state of Tennessee. The company has completed more than 1,000 inspections and is working toward establishing a certified license and training program for water storage tank inspection. Allds spent 11 years with the Tennessee Department of Environment and Conservation, four of those years as a regulator with the Division of Water Supply.

TrackPoint Systems**Nashville, TN****<http://trackpointsystems.com>**

TrackPoint Systems, LLC, (TPS) provides unique and creative location-based asset tracking products and monitoring services to federal, state, and local governments and to private industry. Using similar skills and technology, TPS also provides engineering services and products for customers needing custom applications for data sensing, transmission and presentation. TPS currently has projects and products in the homeland security, transportation, commercial distribution and medical device development industries.

BioThermatics**Nashville, TN****<http://biothermatics.com>**

BioThermatics is a research and development-driven medical device company focused on enabling heat-assisted cancer research. The company specializes in molecular hyperthermia therapy, a cancer treatment that involves heating tumors to kill or weaken cancerous cells, thereby improving the effectiveness of complimentary therapies like radiation, surgery and anti-neoplastic agents.

BioThermatics has developed a cancer treatment "platform technology" that utilizes low-frequency radiotherapy to non-invasively project a negatively charged energy field deep into biological tissue. The company's ground-breaking system efficiently heats tumors to cytotoxic temperatures within eight minutes, unleashing a powerful immune response designed to devastate cancer cells.

Orison Corporation**Bristol, TN****<http://orisoncorp.com>**

Founded in 2002 to develop an adjunct modality for breast cancer detection, Orison Corporation is a medical technology company focused on proprietary, automated whole breast ultrasound technology. The company's diagnostic platform provides many advantages for breast cancer detection as well as being woman-centric in design. Orison's Embrace™ and Embrace 3D™ products utilize full field digital ultrasound as an enabling technology. Our proprietary technology provides the radiologist with a unique, three-dimensional environment by using fully automated digital ultrasound acquisitions and image analysis algorithms.

ExtraOrtho**Memphis, TN****<http://extraortho.com>**

ExtraOrtho™ is an early-stage orthopedic company. The company's first product is an external fixation trauma device targeting a \$300 million dollar market. This unique device provides greater ease of use for the physician and more options for application. There are three products currently being developed and the company expects to expand this R&D pipeline in the next two years. ExtraOrtho received clearance for sale for the first product from the FDA in July 2009. ExtraOrtho's name was changed in May 2009 from QFx Technologies to ExtraOrtho. The company currently has seven employees.

Oak Ridge National Laboratory**Oak Ridge, TN****<http://ornl.gov>**

Oak Ridge National Laboratory is a multi-program science and technology laboratory managed for the U.S. Department of Energy by UT-Battelle, LLC. Scientists and engineers at ORNL conduct basic and applied research and development to create scientific knowledge and technological solutions that strengthen the nation's leadership in key areas of science; increase the availability of clean, abundant energy; restore and protect the environment; and contribute to national security. ORNL also performs other work for the Department of Energy, including isotope production, information management, and technical program management, and provides research and technical assistance to other organizations. The laboratory is a program of DOE's Oak Ridge Field Office.

Gloyer-Taylor Laboratories**Tullahoma, TN****<http://www.gloyer-taylor.com>**

Gloyer-Taylor Laboratories, LLC, was formed in early 2004 and is involved in the development and commercialization of promising technologies in areas including aerospace, propulsion, structures, biomedical and commercial products. The company is organized into three specialized labs: Flandro Stability Lab (the application of the breakthrough UCDS capability to eliminate the high cost and risk of combustion instability in the propulsion industry); PacAstro Lab (development of rocket propulsion technologies and associated products); and Aspect Engineering Lab (development of innovative composite structure technologies and approaches for use in aerospace systems).

Genera Energy**Knoxville, TN****<http://generaenergy.net>**

Genera Energy is a for-profit, limited liability company wholly owned by the University of Tennessee Research Foundation. Genera provides a vehicle to leverage state and federal funding with private research and development investments, strategic partnerships and collaborations to further the research, economic development and clean energy objectives of the state and the University of Tennessee. Genera focuses on developing integrated biomass supply chain solutions and strategic partnerships to support the bioenergy industry in Tennessee. Genera's portfolio of public-private clean energy projects includes biomass, biofuels and energy crops.

SUNSTAR Transaction Systems**Spring Hill, TN****Website Not Available**

SUNSTAR Transaction Systems is a leading developer of mobile transaction solutions for consumers, merchants, financial institutions and other transactions-based vertical markets. For merchants and service providers, the SUNSTAR unified transaction service process allows multiple identifiers (e.g. coupon, gift card and credit card) to be processed all within a single transaction. With the company's Galaxy Network and Services Platform, all transactions are secured via proprietary and encrypted files, protocols and network connections, for both the end users and service providers. The company was founded by Christopher B. Johnson who has over 15 years of IT experience and who serves as IT architect for Spheris Operations.

Diversified Renewable Energy Products**McKenzie, TN****Website Not Available**

Based in McKenzie, Tenn., Diversified Contractors Inc., provides a complete line of green products designed to reduce pollution and waste. The company, which has been in business in McKenzie since 1987, manufactures customized metal fabrications for local industry, along with complete installation, electrical and general construction services. Over the past year, the company has expanded into developing and installing alternative energy applications, such as solar and wind power. Diversified Contractors, along with Stephen Maupin, has built a gasifier that can generate electricity and heat from biomass.

The Davis Groupe
Murfreesboro, TN
<http://davisgroup.com>

The Davis Groupe, LLC (TDG), located in Murfreesboro, is a manufacturer, distributor and manufacturers representative for industrial products. TDG has historically focused on the automotive industry, and its largest customers are Toyota, Nissan and Honeywell. In the last year, TDG has largely maintained its current business and revenue, but has expanded its focus to include emerging environmental technologies that can be developed, manufactured and distributed in Tennessee. TDG has four products/technologies that are either in final development stages or are fully developed and ready for market. These products and technologies are in the fields of wind turbines, LED lighting, fuel savings and energy storage systems.

Digital Q
Memphis, TN
Website Not Available

Digital Q is a Memphis-based technology company focused on developing digital coupon distribution and processing solutions. The company provides digital coupon products and services to address the needs of consumers, retailers and manufacturers. Their vision is to identify, develop and market solutions that are innovative, automated and seamless, through creative technology. Digital Q was formed in 2010 and is led by President and CEO Darryl Jackson. Jackson is a seasoned senior business executive with a reputation for delivering results and product commercialization. He brings a wealth of experience to Digital Q in the areas of sales, marketing, strategic planning and engineering. Additionally, Jackson has experience in leading multiple start-up businesses within several Fortune 500 companies including GE Capital, Xerox and Kodak. He earned his BS in Engineering from Tuskegee University and an MBA from the University of Rochester.