



Bringing the science of nerve repair to life.

13859 Progress Blvd.
Suite 100
Alachua, FL 32615
www.axogeninc.com



Fast Facts

Founders:	John P. Engels Jamie Grooms David Muir
Date Founded:	2002
Employees:	50
Headquarters:	Alachua, FL
Revenue:	N/A
University:	University of Florida
Federal Funding Agency:	National Institutes of Health
Initial Research Funding:	\$1.5M

AxoGen is a regenerative medicine company focused on the science, development and commercialization of technologies for peripheral nerve regeneration and reconstruction to help patients suffering from traumatic injuries or undergoing surgeries that impact the function of their peripheral nerves.

Every day, people suffer traumatic injuries or undergo surgical procedures that impact the function of their peripheral nerves. Peripheral nerves provide the pathways for both motor and sensory signals throughout the body and their damage can result in the loss of function and feeling. In order to improve surgical reconstruction and regeneration of peripheral nerves, AxoGen has developed and licensed patented and patent-pending technologies, which are used in its portfolio of products. AxoGen's Avance[®] Nerve Graft for bridging the gap created when the nerve is severed has been used on more than 7,000 patients, including soldiers injured in Iraq and Afghanistan.

The Story Behind the Company

Axogen is the result of University of Florida neuroscientist David Muir's years of research on peripheral nerve damage. Historically, peripheral nerve repairs have been done with one of the patient's own nerves, but this requires a second surgery and can cause its own lasting damage. Muir and his colleagues developed a technique for harvesting and treating nerve tissue from cadavers to remove cells and other tissue, leaving sterile hollow nerve channels through which the patient's own nerve can regenerate. The initial research and development was undertaken at the University of Florida with a \$1.5 million grant from the National Institutes of Health.



Materials that power our lives

5036 Dr. Phillips Blvd.
Suite 319
Orlando, FL 32819
www.nanophotonica.com



Fast Facts

Founders:	Paul Holloway, Jiangeng Xue
Date Founded:	2009
Employees:	10
Headquarters:	Orlando, FL
Revenue:	N/A
University:	University of Florida
Federal Funding Agency:	Department of Energy Department of Defense (Army Research Office)
Initial Research Funding:	\$2.4M

NanoPhotonica brings innovative nanomaterials and production techniques to enable market-altering improvements to displays and solar panels, as well as other electronic device industries. The increased conductivity of the materials enhances electrical-optical conversion, and its ability to act as a moisture, oxygen and UV barrier prevents premature degradation and increases device lifespan.

NanoPhotonica's quantum dot LED display technology utilizes up to 50 percent less power, decreases production costs up to 75 percent and increases color vividness and ease of viewing vs. traditional LCDs. The technology, known as S-QLED, costs significantly less to operate and manufacture than existing technologies. The company has also used the material to manufacture thin film solar panels. In addition to reducing production costs and improving efficiency, they have found that it tripled the life expectancy of the panels.

The Story Behind the Company

NanoPhotonica is a result of the combined work of two research teams at the University of Florida. Research by Jiangeng Xue, a UF associate professor of materials science and engineering, focused on improving existing organic LEDs. Complementing Xue's team was another headed by Paul Holloway, distinguished professor of materials science and engineering at UF, which delved into quantum dots, or QDs. These nanoparticles are tiny crystals just a few nanometers (billionths of a meter) wide. When excited by electricity, QDs emit an array of colored light. By integrating the work of both teams, researchers created a high-performance hybrid LED, comprised of both organic and QD-based layers. The initial research and development was undertaken at the University of Florida with funding from the U.S. Department of Energy and the Army Research Office.



1915 SW 21st Avenue
Fort Lauderdale, Florida 33312-3113
www.watchstander.com



Fast Facts

Founder:	David Andrew Rigsby
Date Founded:	2011
Employees:	3
Headquarters:	Fort Lauderdale, FL
Revenue:	N/A
University:	Pennsylvania State University
Federal Funding Agency:	Department of Defense (Naval Sea Systems Command)
Initial Research Funding:	\$350,200

WatchStander, LLC. provides a legal and non-lethal approach to maritime piracy. Developed at the Applied Research Laboratory (ARL) at the Pennsylvania State University and in partnership with the U.S. government, WatchStander's technology protects cargo vessels and their crews from piracy by using U.S. military technologies.

The core technologies used by WatchStander on cargo vessels that have been tested and verified include radar surveillance, automatic behavior recognition, immediate automated defense responses, unmanned countermeasures, and non-lethal defense.

The Story Behind the Company

As piracy has exploded in the Indian Ocean region, WatchStander was formed to apply military technologies developed at the Applied Research Laboratory (ARL) at the Pennsylvania State University to maritime defense more broadly.

David Rigsby, who founded and serves as President of WatchStander, has long been affiliated with the ARL at Penn State and was among the first to recognize the value of naval perimeter security technology to maritime anti-piracy defense. He has guided the development of these non-lethal and legal technologies that protect cargo vessels throughout the world.

The U.S. Navy established the Applied Research Laboratory at Penn State in 1945. As a university center of excellence in naval science and technologies, with pre-eminence in undersea missions and related areas, the ARL provides solutions to problems in national security, economic competitiveness, and quality of life. The research that led to the technologies behind WatchStander was supported by the Naval Sea Systems Command.