

NanoTechLabs' Company and Technology Overview



NanoTechLabs
Piedmont Triad Research Park
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What is NanoTechLabs?

NanoTechLabs innovates, develops, and commercializes select nanotechnology-based products. Our developmental thrusts include nanomaterials, specialty chemicals, organic devices, biomaterials, and composite materials. We were incorporated to provide an improved vehicle for advancing nanotechnology products to market, and we will become the premier nanotechnology innovation, development, and commercialization company. NanoTechLabs pursues research opportunities, reduces innovations to prototype, generates proprietary technologies, establishes sales capabilities, and scales production and distribution capacities. We move premium products to market quickly, offer customized systems-oriented solutions, and work to build an organization focused upon creativity and quality. We are located in the Piedmont Triad Research Park in downtown Winston-Salem, NC.

What is nano?

Nano- is a prefix that comes from the SI unit system of measure. Like the prefixes centi- or kilo-, nano- is affixed to a unit of measure to indicate a given multiple of that unit. While kilo- is 1×10^3 or 1,000 of a unit, a nanometer is 1×10^{-9} or 0.000000001 (one billionth) of a unit. Nano- has evolved from these humble beginnings to now represent anything high tech and progressive.

What is nanotechnology?

As a word, nanotechnology is very popular. It is often used to describe all manner of things, but standards are evolving. At NanoTechLabs, we use the National Nanotechnology Initiative's definition of nanotechnology. It is (i) research

and technology development at the atomic, molecular or macromolecular levels, in the length scale of approximately 1 - 100 nanometers, (ii) creating and using structures, devices and systems that have novel properties and functions because of their small and/or intermediate size, or (iii) the ability to control or manipulate on the atomic scale.

Why is nanotechnology important?

Nanotechnology has been a goal of science for centuries (they just didn't know it). The behaviors and actions of trillions and trillions of atomic and molecular constituents determine the macroscopic behaviors of all matter. Nanotechnology represents a growing ability to control atoms and molecules and thereby macroscopic properties. Nanotechnology offers untold possibilities to better our world from reducing energy consumption to better protecting our soldiers, from delivering more efficient medications to enabling quantum computing.

Where is nanotechnology?

Nanotechnology is probably in products you already own. Nanotechnology products are loosely divided into three categories: incremental, evolutionary, and radical.

Incremental nanotechnology – Incremental nanotechnology involves products which offer increased performance due to nanoscopic improvements. These products can be found sunscreens, automobile surfaces, and Navy ship hulls.

Evolutionary nanotechnology – Evolutionary nanotechnology creates nanoscopic devices for

specific applications. These devices commonly employ nanomaterials and require the support of non-existing hardware, software, and device engineering. These products are still at best 3 to 5 years away.

Radical nanotechnology – Radical nanotechnology involves high level devices capable of unique performance. They are commonly composed of multiple layers of nanotechnology products. These products include smart uniforms, quantum computers, and self-assembling molecules, but they are at best still 10 to 15 years away.

Company Overview

President and CEO	Dr. Richard Czerw
Organizational Values	Efficiency, quality, and creativity
Nanotechnology Vision	We envision a world where the health, safety, security, and everyday lives of people around the world are continually improved through nanotechnology.
Nanotechnology Focus	We focus our research, development, and commercialization efforts into our development thrusts: nanomaterials, specialty chemicals, organic devices, biomaterials, and composite materials.
Strategic Partnerships	One of NanoTechLabs greatest strengths is its strategic partnerships. By partnering with other nanotechnology, engineering, and manufacturing companies, we increase our business interface, gain access to established channels, amplify product exposure, and gain access to specialized equipment as well as greater funding opportunities.
Current Products	NanoTechLabs currently sells several types of nanomaterials and ionic liquids. Our nanomaterials include nanotubes, nanowires, and nanoparticles.
Product Candidates	NanoTechLabs is currently developing synthetic lubricants that are more stable and environmentally friendly; thermal fluids with improved heat capacities and thermal conductance; sensors with increasing sensitivity and disposability; and finally, neural probes with the potential to alleviate the symptoms of numerous neurological disorders.
Services	NanoTechLabs provides several services to customers including materials solutions, integration, and fictionalization services.
Investors	NanoTechLabs is fully supported by its operating activities and currently has no stockholders beyond management and employees. However, rapid growth is expected in the future, and financing options are being considered.