



## High-Tech Nanomanufacturing facility locates in Southside Virginia

March 26, 2004

Today U.S. Senator John W. Warner joined Virginia Secretary of Commerce & Trade Michael J. Schewel, 5th District Congressman Virgil Goode and Senator Charles Hawkins, Chairman of the Virginia Tobacco Commission, at an announcement ceremony locating a nanomanufacturing facility in the City of Danville's Tobacco Warehouse District. This project will help to transform the Southside economy of Virginia by promoting a high-technology image for the region and creating 54 "new economy" jobs by 2006.

Headquartered in Blacksburg, VA Luna Innovations will invest \$6.4 million renovating the facility for the production of cost-effective, carbonaceous nanomaterials to be used for research and development of new military and commercial applications. Carbonaceous nanomaterials are a third form of carbon, after diamond and graphite, comprised of up to 500 carbon atoms arranged in a sphere or tube. To add functionality, atoms of different elements can be placed inside the carbon cage including various metals.

Luna's nano-initiatives include:

- new radio-pharmaceuticals which allow never before seen cell targeting giving "magic bullets" for cancer tumor therapy,
- highly functional textile materials that give unprecedented electrical, thermal, and mechanical properties,
- building blocks for faster computers that will fit on the head of a pin,
- cost-effective energy generation and storage devices made with nanotechnology to replace fossil fuels.

"This project allows Luna to work closely with Danville's highly motivated and qualified workforce to secure Virginia as a leader in the nanotechnology sector," said Dr. Kent Murphy, Luna Innovations' Founder and CEO. "The applications of nanomaterials are almost limitless and include healthcare, defense, telecommunications, and biotechnology. Luna is very excited to work with this team to play a major role in this explosive new field."

With an existing production facility in Blacksburg, VA Luna Innovations is the world's only producer of the Trimetasphere molecule. Trimetaspheres are spherical molecules of carbon atoms that enclose various metal and rare earth elements, a discovery made by Dr. Harry Dorn, a professor of chemistry at Virginia Tech.

A Trimetasphere has up to 80 carbon atoms, which are stabilized by the three metal atoms with a nitrogen atom core. Traditional nanomaterials of this type are produced in very low yields and require stringent safeguards in isolation and handling procedures because of their high instability. Luna licensed the technology from Virginia Tech Intellectual Properties, Inc. and has improved the methods allowing for the production of large quantities of materials that are stable in air and water-soluble. Luna's intellectual property position includes exclusive licenses, patents and inventions relating to synthesis, functionalization, and applications of these new nanomaterials.

Luna Innovations is a leader in nanotechnology and has commercialized institutional research resulting in state-of-the-art nanomaterial manufacturing expertise. Currently, there are limited carbonaceous nanomaterial quantities to supply the ever-increasing need in research and development resulting in high costs and preventing widespread development. Luna's Danville facility will produce large quantities at low cost, expanding the application and consumption of nanomaterial.

"Nanotechnology will transform our lives as we know them," said Ben Plowman, Vice President of Sales and Marketing at Luna Innovations. "This project proves the power of nanotechnology, creating unique collaborations across many barriers--technical, economic and political."

### ABOUT LUNA:

Luna Innovations is an employee-owned business, headquartered in Blacksburg, Virginia. Luna's business model is - **Invent, Build and Commercialize**. Utilizing Small Business Innovation Research and NIST Advanced Technology Program awards, corporate partnerships with Fortune 100 companies, and venture capital, Luna has developed cutting edge products that improve the diagnosis and treatment of disease, enhance the way the world communicates, and provide a brighter future for our energy needs. Luna has created hundreds of high quality jobs in the State of Virginia and has research and manufacturing facilities in Blacksburg, Roanoke, Charlottesville, Hampton Roads, Northern Virginia, Baltimore and now in Danville.

### Contact:

Karin Clark, Director of Marketing and Communications

Email:

Phone: 1.540.552.5128