



LSGPA's Portfolio Grows with Investment in Three New Companies

LSGPA is concluding 2008 with a flurry of investment activity that includes additional support for some existing members of the portfolio and the addition of three new companies: **Apeliotus Vision Science, Inc.**; **Indigo Biosciences, Inc.**; and **P-Wave, Inc.** Collectively, these three new investments represent a commitment of \$1 million. Like many angel investors and some venture capitalists, LSGPA believes that the current economic downturn is unearthing some very promising young companies and new entrepreneurs. "The need for innovation in healthcare never abates," says Mel Billingsley, President and CEO of the Life Sciences Greenhouse. "Whereas other investors, or investors in other sectors, might be more cautious than usual right now, LSGPA remains focused on its mission to invest in well-qualified seed-stage companies. As our recent investments suggest, we're prepared to seize new opportunities as they arise." The new investments include:

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MEL BILLINGSLEY,
PRESIDENT AND CEO
OF LIFE SCIENCES
GREENHOUSE

* **Apeliotus** is developing a simple, cost-effective tool called the **AdaptDx™** for early diagnosis of age-related macular degeneration, or AMD. The device measures the eye's ability to adapt to the dark.

In an initial study the **AdaptDX** detected the onset of AMD well before it caused lack of visual acuity. It's hoped that early detection, combined with therapy using currently available or new drugs, will prevent or slow vision loss, since AMD is a progressive disease that affects the vision of more than 30 million people worldwide. Currently, there is no good method for early detection of the condition.

* **P-Wave, Inc.**, (www.p-wave.com) is a Wyomissing-based company that specializes in the development and commercialization of project management solutions that meet the specific needs and challenges of the regulated laboratory market. Many labs still use paper-based systems or a patchwork of software programs to manage their documents and data, either because they've been disappointed by other systems, or because they assume that no commercially available solutions exist. P-wave's **LabCORE** product has demonstrated, in customer environments, the ability to stand up to the rigors of CAPA, 21CFR Part II, and similar rigorous regulatory guidelines.

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* **Indigo Biosciences** (www.indigo-biosciences.com) has developed a suite of frozen, single-use cell-based nuclear receptor assays that are cost-effective and easy for the customer to use. They are pre-formatted, so that they can be used with minimal processing upon receipt, and make use of a proprietary cryo-preservation technology (*CryoMite™*) that allows the assay to be stored at -80° C with significantly greater survivability versus competitive technologies. Some nuclear receptors are drug targets, but many have other biological functions that can be interrupted by “off-target” interactions with pharmaceuticals. Enhanced prediction of such off-target interactions should help weed out drug candidates that might not ultimately be commercializable.

And some updates from the others in the portfolio...

NanoHorizons, together with Philadelphia-based G. J. Littlewood & Son, Inc., announced the development of a process to integrate NanoHorizons SmartSilver™ certified antimicrobial protection into high-technology, high-performance industrial fibers, such as Kevlar.

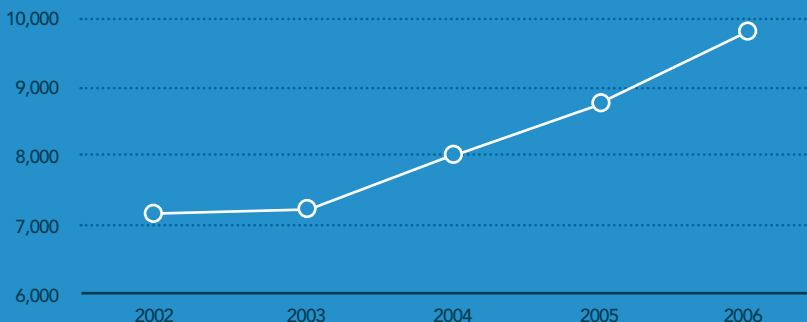
Myriad Genetics, Inc., announced the acquisition of a license from Saladax Biomedical for a novel technology that allows physicians to adjust a patient’s dose of chemotherapy to provide optimal exposure while minimizing toxicity during the course of treatment.

Strategic Polymer Sciences (SPS), together with Solvay Solexis, demonstrated volume manufacture of high quality dielectric capacitor films. This will allow SPS to rapidly enter into the high-margin capacitor market using its proprietary fluoropolymer technology.

Funds Expended for Industrial Research & Development by the State of Pennsylvania

Pennsylvania ranked 8th among states, behind CA, MI, MA, NJ, TX, WA and IL.

DOLLARS EXPENDED (In millions)



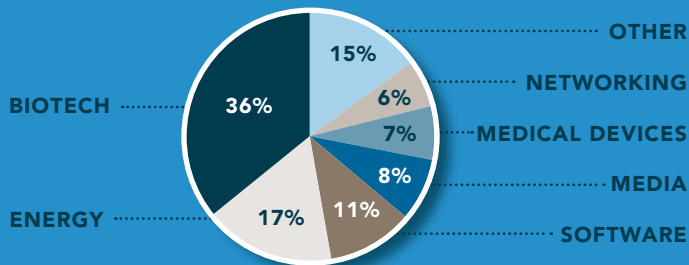
Source: <http://www.nsf.gov/statistics/industry/>

2008 YTD State Rankings for Venture Capital Investments

RANK	STATE	VENTURE CAPITAL \$ (IN BILLIONS)
1	California	\$11.7
2	Massachusetts	\$2.3
3	New York	\$1.1
4	Texas	\$.96
5	Washington	\$.87
6	Colorado	\$.68
7	New Jersey	\$.57
8	Pennsylvania	\$.52
9	Minnesota	\$.44
10	Illinois	\$.36
11	Virginia	\$.34
12	Georgia	\$.33

Source: *Venture Capital and Entrepreneurship in Pennsylvania*, November 2008. National Venture Capital Association.

Venture Capital Investment in PA Industry Breakout – 2008 YTD



Source: *Venture Capital and Entrepreneurship in Pennsylvania*, November 2008. National Venture Capital Association.

HCAR Technology Suites: Now at Full Capacity

The Technology Suites at the Hershey Center for Applied Research (HCAR) are now fully occupied, serving as the lab and office headquarters for four young life sciences companies, two of which have been attracted from out of state.

The HCAR Technology Suites were conceived specifically with early-stage life science companies in mind. These companies require their own dedicated wet lab and/or office space but are not yet positioned to commit to a long term lease. The Technology Suites offer flexible, modular space as well as facilitated access to academic-based services and equipment. "This product offering," says HCAR Executive Director, Laura Butcher, "serves to lower development costs, accelerate technology commercialization, and shorten time-to-market, making access to capital and revenue generation more attainable."

The four companies leasing the five Technology Suites are:

- * **Apeliotus Vision Science** – Apeliotus, attracted from Georgia, is a developer of a diagnostic for age-related macular degeneration (AMD), the leading cause of adult vision loss and blindness in developed countries.
- * **Apogee Biotechnology Corporation**
Leasing two of the Technology Suites, Apogee, a spin-off of the Penn State Hershey College of Medicine's Department of Pharmacology, is developing chemical compounds that will inhibit the activities of sphingosine kinase, an enzyme known to drive cell proliferation and inflammation.
- * **Better Bowls** – Better Bowls is developing new consumer food products designed to leverage the latest science to combat America's primary health epidemics including obesity, lack of nutrients and related illnesses including diabetes and cardiovascular diseases.
- * **Glycotek** – Glycotek, a New York-based company, is developing a technology that will contribute to clinical medicine a long-sought alternative to heparin, which currently must be administered in a hospital setting, for the treatment of deep vein thrombosis and other thrombotic conditions.

In 2007, the Life Sciences Greenhouse of Central Pennsylvania (LSGPA) awarded HCAR a \$700,000 grant to support the Technology Suites.



On the Web: *Items our readers may find of interest*

RSS Feed

Kauffman Insights at

www.kauffman.org/StayConnected.aspx
Videos, podcasts and print pieces related to entrepreneurship from experts in the field

Site

RGE Monitor at

www.rgemonitor.com/index.php
Coverage of issues in economics geared toward professionals in finance

Blog

<http://blog.pharmalive.com/>
Chris Truelove of **Pharmalive** aggregates items of particular interest from a range of pharma-related blogs



* November 10, Philadelphia



Chris Matthews, host of **Hardball** with Chris Matthews, and **Representative Allyson Schwartz** of Pennsylvania's 13th Congressional District discuss the future of healthcare together with Bio President & CEO **Jim Greenwood** (not pictured).

Source: Pennsylvania Bio, co-host of **Biotech 2008**.



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Events Calendar



JANUARY 16

Central PA College
Venture Challenge
Harrisburg, PA

www.harrisburgregional-chamber.org



JANUARY 27

Writing an Effective
Business Plan
Shippensburg, PA

www.shipsbdc.org



FEBRUARY 25

Harrisburg U. Academic
Center Dedication
Harrisburg, PA

www.harrisburgu.net

The Life Sciences Greenhouse is a public/private venture whose mission is to commercialize bioscience technologies. Clients include university-based researchers and technology development groups, emerging companies, and companies seeking to expand or relocate. LSGPA provides direct early-stage investment, targeted business development services, and connections to strategic partners.

