Innovation express

PARTNERSHIPS | CONNECTIONS | SUPPORT | RESOURCES | SUMMER 2004

Foundation wins statewide award for service to high-tech firms

Indiana's technology elite recognized Purdue Research Foundation as the state's premier provider of professional services to technology entrepreneurs through its economic development arm, the Purdue Research Park.

During a black-tie gala held at the Indiana Roof Ballroom, the foundation received a 2004 MIRA Award from TechPoint, a state consortium of high-tech business leaders and professionals.

The foundation was among six finalists vying for the award in the professional service provider category that honors a company or organization that best supports the needs of technology-based enterprises. Awards also were given to companies in the categories of advanced manufacturing, health and life sciences, information technology, gazelle company, and education/program.

"This is an exciting time for the Purdue Research Foundation," said Joseph Hornett, the foundation's senior vice president and treasurer. "Because we need more space to accommodate entrepreneurs who want to start companies in the Purdue Research Park, we recently broke ground to expand the size of our technology incubator and to construct another privately funded facility, the International Technology Center.

"But this honor from TechPoint gives us another opportunity to tell Indiana's business leaders that the Purdue Research Park is more than buildings housing high-tech firms. It's about the valuable services we provide to them."

The 2004 runners-up in the professional service provider category are Walker Information and Thomas P. Miller and Associates.

Another Purdue Research Park company, Imaginestics LLC, was a runner-up in the gazelle company category, an award classification reserved for early-stage ventures selling products or services in the advanced-manufacturing, health-and life-sciences or information-technology industries.

Purdue Research Foundation founded the park's first incubator to provide a place for Purdue University faculty who wish to commercialize their ideas, companies that want to develop businesses based on licensed Purdue technologies, and high-tech firms that wish to benefit from a close proximity to Purdue. ◀ www.techpoint.org

Did you know?

High-tech companies have the opportunity to join the Purdue Research Park incubation complex as affiliate firms.

GREG DEASON
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Park company receives international honor

gh LLC, a Purdue Research Park company that is helping the visually impaired, has been recognized for its entrepreneurial achievements by the National Business Incubation Association (NBIA).

The NBIA named gh the 2004 Outstanding Incubator Graduate in the technology category in Atlanta during the organization's 18th International Conference on Business Incubation.

A 2000 graduate of park's Gateways Program, gh developed computer software to automatically translate text into Braille by using Extensible Markup Language (XML), providing faster and more accurate conversion than other industry processes. The company also creates computer-based electronic products, such as Digital Talking Books, electronic Braille, electronic large print, and fully accessible Web-based content known as READ™ products.

According to David Schleppenbach, gh's chief executive officer, the park's staff provided gh with basic business advice that played a crucial role in the company's success.

"Without this, we would have made some pretty big mistakes," he said.

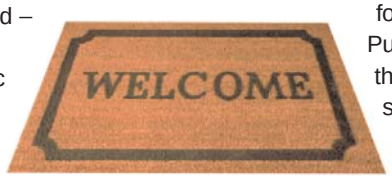
gh's co-founders Joseph Said (left) and Dave Schleppenbach accept a prestigious incubation award from the NBIA (photo by Rick Fatica, courtesy of the NBIA)

TRAIN OF THOUGHT

JOSEPH HORNETT
Senior VP and Treasurer
Purdue Research Foundation

Purdue Research Foundation doesn't act as a typical "landlord" for tenants of its high-technology incubator at the Purdue Research Park in West Lafayette.

True, the rent is reasonable, and the location is conveinent to Purdue University, where many of our companies' founders hold faculty positions. But the services we provide to give our client firms the advantage they need to succeed – business consulting, human resources, marketing and public relations – go way beyond a landlord-tenant relationship!



In fact, space within our incubation complex (already the largest of its kind in the nation) is in such demand that we're expanding our flagship incubator by 45,000 square feet.

This new addition to the Purdue Technology Center is expected to be ready for incoming client firms in December. At that time, we'll be happy to take down our figurative no vacancy sign, the one we put up after several more high-tech companies moved into the complex during these past few weeks, including Executive Automation LLC, IN Space LLC, SFI Systems LLC, NOX Technologies, Zeeko, and Zion PolyChem Inc.

While we've been rolling out the welcome mat for companies who want to be a part of this creative and supportive environment, we haven't forgotten our existing client firms.

Endocyte Inc., a life sciences venture that has been developing Purdue-licensed cancer detection and treatment technologies in the park since 1996, will be the new wing's anchor tenant. Besides having the potential to be the next Eli Lilly and Co. for Indiana, Endocyte is part of the Purdue family. So we're going to provide the company with what it really needs – a smooth transition into its next, crucial growth phase.

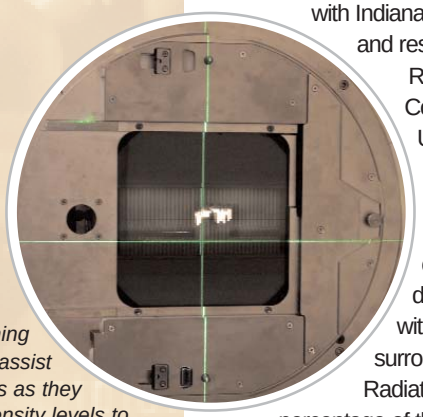
As Endocyte scientists work to develop revolutionary ways to deliver drugs directly into cancer cells, they need more space. Now, rather than spending the venture capital secured last year on expensive facilities *(see story on page 3)*, Endocyte can spend it on research and FDA-regulated human clinical trials.

Endocyte's 15,000 square feet will be equipped with state-of-the-art wet labs and offices. Although the company is expected to occupy the space for just three to five years, the labs left behind will be a welcome sight to our next crop of biotechnology startups and a further enhancement to Indiana's life science corridor. ◀

Joseph B. Hornett

VENTURE SPOTLIGHT

APC works with IU and Purdue to improve radiation therapy



APC is designing software to assist oncologists as they assign intensity levels to thousands of radiation beams delivered by linear accelerators (shown). (Courtesy of Rocky Rothrock, Indiana University School of Medicine Visual Media)

Radiation therapy for treating cancer could be improved through the collaborative efforts of a Purdue Research Park high-tech company with Indiana and Purdue university scientists and research physicians.

Researchers at Advanced Process Combinatorics Inc. (APC), Purdue University and the Indiana University School of Medicine have designed and refined a new technique that allows physicians to quickly customize treatment plans that deliver more radiation to tumors without causing extensive damage to surrounding or healthy tissue.

Radiation treatments are used in a large percentage of the more that 1 million cases of cancer treated annually in the United States. But Dr. Mark Langer, the project's lead investigator and a professor of clinical radiation oncology at the IU School of Medicine, said individualized radiation-oncology treatment plans have been very difficult and time-consuming to prepare.

Rather than having a single large radiation beam pass through the body, radiation through intensity modulated radiation therapy (IMRT) is effectively broken up into thousands of tiny, thin radiation beams that intersect at the cancer. Langer said he believes the process could be improved if oncology radiation treatment planners had the capability to more quickly and effectively assign intensity levels to each of the smaller beams of radiation.

APC, a company that specializes in algorithm engineering, will apply their mathematical solution to IMRT by creating a software program that can assist the treatment planner in beam arrangement and intensity assignment.

Joseph Pekny, co-founder of APC and a Purdue professor of chemical engineering, said that despite the interdisciplinary nature of the team, the engineers at APC and the medical researchers have been able to speak the same language because APC has a former cancer researcher on staff.

"Mathematically, what are the chances of this type of coincidence?" Pekny wonders. ◀

INCUBATION STATION

Jischke: a "keeper" for Indiana

Indy Men's Magazine and *Inside INdiana Business with Gerry Dick* asked Hoosiers to name the state's top 25 people whose absence would do Indiana the most harm.

The monthly magazine and weekly business television program issued a statewide call in March for nominations of individuals making a difference in the fields of business, politics, sports, education, philanthropy and the arts.

After thousands of votes for more than 900 people were tallied, Purdue President Martin C. Jischke was ranked 10th on the list of Indiana's 25 Keepers. Jischke was the only individual named from the field of higher education. ◂

www.insideindianabusiness.com

Manufacturing has long been an important piece of Indiana's economy, and if our state is going to continue to compete in the international marketplace, we must take the steps necessary to remain on the cutting edge of new technologies.

MARTIN C. JISCHKE
Summit III: Advancing Manufacturing in Indiana on May 18 where he announced plans to establish a Purdue Center for Advanced Manufacturing

2 hired to lead PTC of Northwest Indiana

As construction continues on the Purdue Technology Center of Northwest Indiana in Merrillville, the Purdue Research Foundation has put a team in place to lead the high-tech business incubator's day-to-day operations.

Merrillville business owner Robert J. Wichlinski has been named the center's executive director, while Northwest Indiana economic development veteran Kathy DeGuilio-Fox has been appointed as the center's business development manager. ◂

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Construction begins on the International Technology Center

A ceremonial groundbreaking at the Purdue Research Park May 26 marked the official start of construction on the International Technology Center, a 75,000-square-foot facility that will include space for high-tech companies and a full-scale health club.

The facility is funded by Research Park Associates LLC, which is the second group of Lafayette-based private investors to construct additional space for growing startup companies at the research park. Construction is expected to be completed this fall. ◂

Cook Biotech donates biomaterial to help wounded children in Afghanistan

Cook Biotech Inc., located in the Purdue Research Park, has sent some of its wound-healing biomaterial to Afghanistan to help children injured there during the war and its aftermath.

Cook Biotech, which manufactures numerous extracellular matrix (ECM)-based medical products, and one of its distributors, Healthpoint Ltd. of Fort Worth, Texas, have donated enough biomaterial medical products to treat hundreds of children.

Earlier this year, Cook Biotech was contacted by Afghan-American Engineering LLC, a consulting firm working to rebuild the war-torn country by using international grants as a funding source and Afghan organizations as on-site contractors and/or operators. The firm requested medical equipment for the Children's Hospital in Kabul, such as fluoroscopes, electrocauterizers, surgery equipment and skin graft supplies.

One of the latest methods for grafting skin involves Cook Biotech's OASIS® Wound Matrix, which acts as a framework to support the remodeling of host tissue. This Purdue University-licensed technology is a tissue-engineered medical device derived from animals and developed into strong, sterile, pliable sheets that provide a rich environment or "scaffold" for cell attachment and growth.

Cook Biotech will begin increased manufacturing of Oasis™ when it opens a 55,000-square-foot facility at the park in September. ◂ www.cook-sis.com

Endocyte leads state's VC pack

The research park life sciences firm Endocyte Inc. attracted $15 million last year, by far the largest of all Indiana-based venture capital recipients.

The company develops Purdue-licensed technology that uses the vitamin folate to target and destroy cancer cells without harming healthy tissues.

Endocyte founders P. Ron Ellis and Philip Low were Indiana finalists in the 2004 Ernst & Young Entrepreneur Of the Year Award®. ◂

www.endocyte.com

New business plan competition open to all

Purdue and the Lilly Endowment are sponsoring business plan competitions in West Lafayette at the Purdue Research Park, and in Fort Wayne and Hammond, to help create and expand the Indiana companies that will provide jobs to stem the state's "brain drain."

Each of the three Opportunity for Indiana Business Plan Competition venues offers a minimum prize purse of $50,000. ◂

www.purdue.edu/discoverypark/opportunity

TECH TALK

Purdue Research Foundation licenses technology that makes ethanol from agricultural waste more effectively

A strain of yeast developed at Purdue University more effectively makes ethanol from agricultural residues that would otherwise be discarded or used as animal feed. The Purdue Research Foundation has issued the first, non-exclusive license of this yeast technology to Iogen Corp.

Purdue molecular geneticist Nancy Ho has worked for 20 years to produce and perfect a yeast that can effectively convert more of the sugars in plant matter into ethanol.

Purdue researchers altered the genetic structure of the yeast so that it now contains three additional genes that make it possible to simultaneously convert glucose and xylose - the sugars derived from agricultural residues, such as corn stalks and wheat straw - into ethanol. The ability to ferment xylose increases the yield of ethanol from straw by about 40 percent.

"To be more cost competitive with gasoline, the two sugars have to be converted together to ethanol, and, until we developed our yeast, no suitable microorganism could do this," said Nancy Ho, a senior research scientist and leader of the molecular genetics group in Purdue's Laboratory of Renewable Resources Engineering.

Iogen, a biotechnology company, specializes in producing ethanol from cellulosic material.

"The use of cellulose ethanol offers advantages to the environment that are not obtained with other transportation fuels that are available," said Jeffrey S. Tolan, senior research scientist for Iogen.

Ho said, "The use of cellulosic materials also could open up new markets for crops, such as grasses, which can be grown on marginal lands, creating jobs and providing more energy independence."

An added advantage of yeast strains developed by Ho is that they are based on environmentally safe Saccharomyces yeast, which has been used for centuries to make wine and bread and is the only microorganism used by industry for large-scale ethanol production from glucose.

https://engineering.purdue.edu/IIES/LORRE

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