OKLAHOMA BIO

OKLAHOMA LEGISLATION RECOGNIZES STATE'S BIOSCIENCE POTENTIAL

The outcome of the 2006 Legislative Session is positive proof that state leaders understand the value Oklahoma's bioscience cluster brings to the economy.

"The bioscience sector has already made a significant mark in Oklahoma, with a total economic impact of $3.4 billion, including spin-off jobs, in 2006," said Carl Edwards, Managing Partner of Price Edwards & Company, and Treasurer and Vice Chair, Bioscience, for the Greater Oklahoma City Chamber. "And, the good news is, we've only just begun."

With the creation of the Economic Development Generating Excellence (EDGE) Fund for bioscience, 2006 marked a historic turning point, as Oklahoma's growing bioscience industry officially became a key area of focus for state economic development. The fund received $150 million in its inaugural year. The goal is to match that amount in 2007 and eventually build the fund to $1 billion. The EDGE Fund will be used to assist the growth of both public and private bio research and development programs and projects. (For more details, go to www.okhighered.org/edge/)

In addition to the EDGE fund, the state's Opportunity Fund was created in 2006 to provide special incentives for closing large economic development deals. This fund will play a major role in the continued development of Oklahoma's bioscience industry. The fund has been established with $45 million, and is expected to be increased in 2007.

The Oklahoma Center for the Advancement of Science & Technology (OCAST), a technology-based economic development agency, received an additional $10 million in state funding in 2006, half of which is earmarked for the Oklahoma Seed Capital Revolving Fund to invest in early stage technology-based companies. OCAST has requested another $10 million in 2007. These appropriations will further the efforts to commercialize technology research.

Finally, Oklahoma's Endowed Chairs Program has been a significant success in attracting high-quality faculty to Oklahoma's public colleges and universities. In this program, the state matches private donations to help expand the higher education talent base. Under the leadership of these top professionals, Oklahoma innovations in science and technology are on the rise. Endowed Chairs is administered by the Oklahoma State Regents for Higher Education (www.okhighered.org), whose efforts bring additional research dollars to the state. This program comes on the heels of the Oklahoma Higher Education Promise of Excellence Act, signed in 2005 to establish a $475 million bond issue – part of which will be used for higher education research and laboratory facilities.

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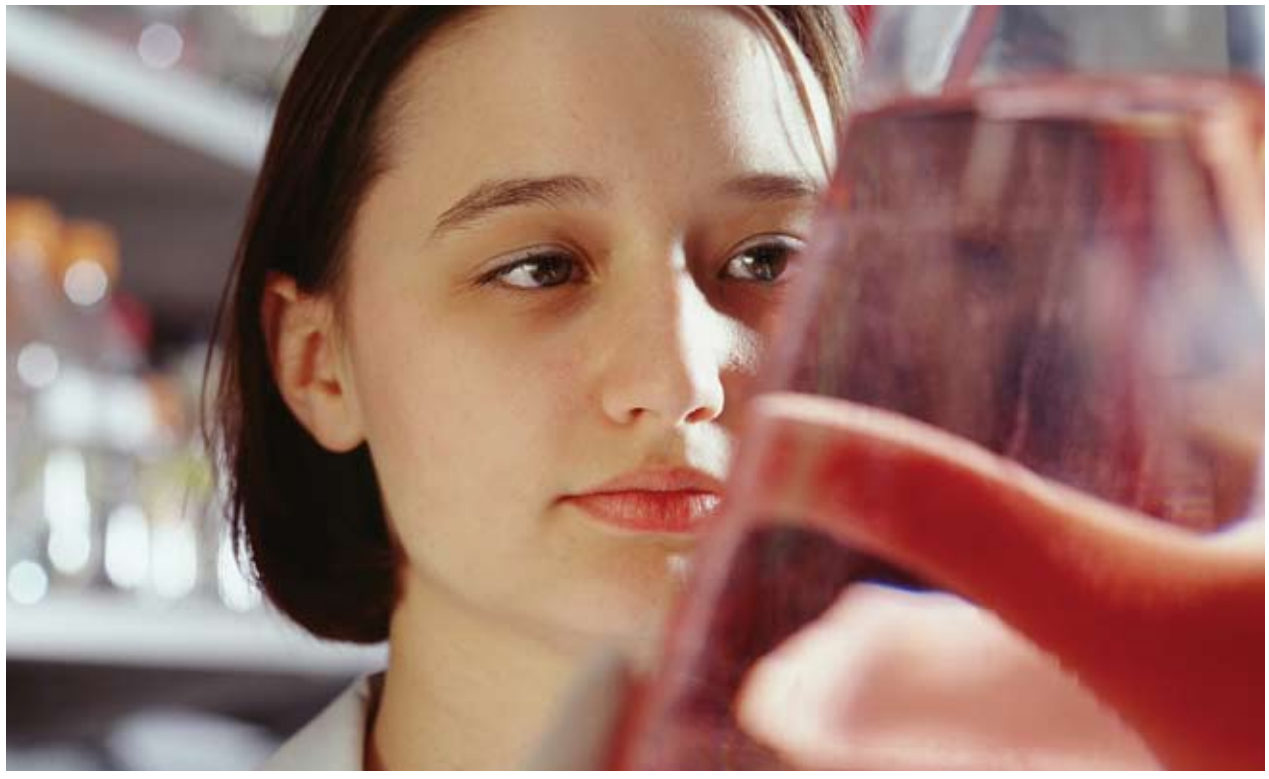
>
> **Carl Edwards**
> **Bioscience Vice Chair, Greater Oklahoma City Chamber**



OUHSC LEADING THE WAY FOR A HEALTHIER STATE

Joseph Ferretti
Senior Vice President and Provost, University of Oklahoma Health Sciences Center

As our state marks its centennial, the University of Oklahoma Health Sciences Center (OUHSC) continues to move toward a healthier future for all Oklahomans.

It is the cornerstone of the Oklahoma Health Center, a complex of 28 public and private health care institutions, with an estimated economic impact of $2 billion to the state. Today, we are painting a picture rich with progress in the completion and planning of several key projects on campus.

These include:

- A $37.9 million addition to the Stanton L. Young **Biomedical Research Center** that brought total laboratory space to 277,400 square feet.
- An $84 million project funded by the University Hospitals Trust that will soon create the first freestanding, **pediatric multi-specialty physicians building** in the state for OU Children's Physicians.
- In October, we broke ground on the $90 million **OU Cancer Institute**, the only comprehensive cancer center within a 450-mile radius.
- And, we recently established the **Oklahoma Diabetes Center**, with plans to extend this effort to the OU Tulsa campus and statewide.

These projects paint a bright, new landscape, attracting even more top scientists, scholars and clinicians to the OUHSC and our state. Together, we will build the bridges that lead to healthier tomorrows for all of us.

CYTOVANCE BIOLOGICS: BUILDING TOMORROW'S CURES

If you build it, they will come. These words ring true for Cytovance Biologics, whose 44,000-square-foot manufacturing facility opened in the fall of 2006. The bio-manufacturing company signed a significant contract to produce recombinant proteins with a West Coast company soon after.

Oklahoma City was chosen after a careful site selection exercise based on its ability to support several important cornerstones of the Cytovance business model and philosophy. "Oklahoma's financial support and scientific talent base are absolutely critical to offering high quality cGMP services at highly competitive rates," said William Canfield, MD. Ph.D., Cytovance Biologics Chairman.

Local universities and pharmaceutical production companies that provide a pool of experienced personnel were an additional incentive. Likewise, a fully accessible international airport with nonstop air service to 25 destinations, including the East and West coasts, and Oklahoma's quality of life and low cost of living cater to exceptional employee retention.

Cytovance is located in a state-of-the-art research park developed by the Presbyterian Health Foundation (PHF). The research park provides nearly 600,000 square feet of Class A wet lab and office space for more than 50 companies and agencies. Cytovance Biologics' new cGMP biomanufacturing facility is the sixth building in the Research Park. The PHF master plan calls for 10 buildings. Less than half a mile from downtown Oklahoma City and designed to support collaborative research, the park has premium conference facilities and is connected to the US National LambdaRail (NLR), a data networking initiative.

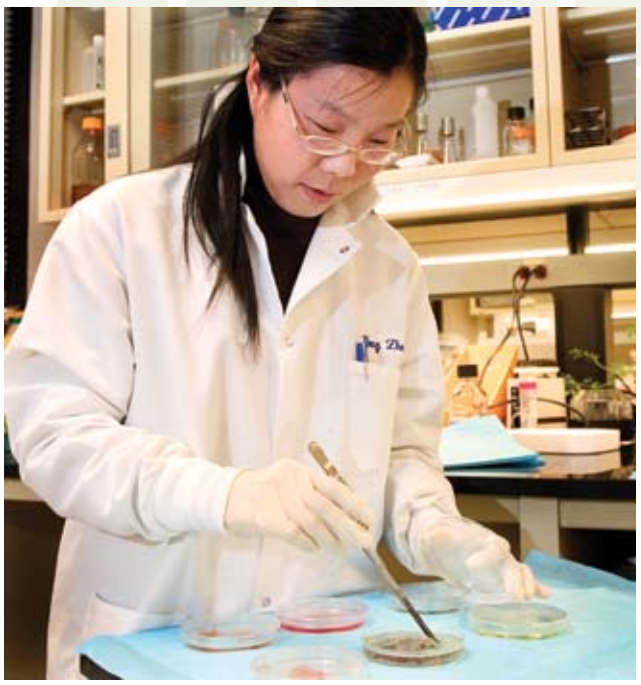
Cytovance's growth is a result of specialization in the execution of clinical production of antibody and recombinant protein products derived from cell culture at scales up to 500L (w/v) from both fed-batch and perfusion processes. Cytovance currently employs more than 25 people in Oklahoma City.

Additional factors contributed to the construction of Cytovance's $16 million biopharmaceutical manufacturing space, which houses its multi-product current good manufacturing practices (cGMP) production facility in Oklahoma City. The plant meets the latest international regulatory standards and is custom-designed for efficient and cost-effective production. It also features space for expansion of production capacity in support of Cytovance's anticipated business growth.

As a testament to Cytovance's growth, the company announced a manufacturing contract with Bone Biologics in February 2007. Based in Los Angeles, Bone Biologics is developing products for use in bone and cartilage regeneration. These products will be used to improve surgical outcomes in the areas of spinal, orthopedic, plastic reconstruction, neurosurgery, interventional radiology and sports medicine. The Bone Biologics' contract is being executed out of the Oklahoma City facility.

Learn more at www.cytovance.com.

NOBLE FOUNDATION MAKES STRIDES IN BIOENERGY



The Samuel Roberts Noble Foundation, based in Ardmore, Oklahoma, is a world-class agricultural consultation and research organization focused on enhancing production agriculture and plant improvement. It has engaged in a multi-faceted approach to research, refine and implement the use of forages – plants traditionally used to feed livestock – as potential bioenergy crops. The Noble Foundation employs 334 people.

The Noble Foundation, along with Oklahoma State University and the University of Oklahoma, is also slated to be part of a proposed Oklahoma Bioenergy Center. This center will enable the competitive and sustainable production of liquid biofuels in Oklahoma while contributing to the national research effort to reduce the country's need for petroleum products.

Noble Foundation scientists and agricultural specialists are initially working on crop improvement and development, with the primary focus on switchgrass, a native grass to Oklahoma that has naturally exhibited drought tolerance and high-yield production. The main thrust of Noble's research includes traditional and molecular breeding to introduce high-value traits. Additional research will target new approaches for this crop, including the development of hybrid varieties to achieve greater yield-per-acre performance. Other Noble research will impact later generations of feedstock through biotechnology to modify a plant's cell wall development to increase the amount of ethanol that can be produced per acre.

Though switchgrass is the primary focus of the Noble Foundation bioenergy efforts, the institution's developmental process can and will be applied to other plants, such as sorghum and alfalfa, with the end result being the production of multiple high-yielding, sustainable bioenergy crops.

The Noble Foundation's impact on the bioenergy industry is not limited to feedstock improvements. The institution is addressing critical agronomic issues, as well as answering the economic questions that will assist in the creation of this industry in Oklahoma and impact its successful development.

To ensure feedstock crops are well established and maintained in Oklahoma, the Noble Foundation is developing crop management plans for the state's agricultural producers. Additionally, Noble's researchers are developing programs that will enable agricultural producers to understand how bioenergy crops can be integrated into current production systems, like livestock production. Informing and educating the stewards of Oklahoma's natural resources will be pivotal to the success of the state's bioenergy industry.

Likewise, Noble Foundation economists are conducting a thorough examination of the actual costs required to establish bioenergy crops, as well as assessing their long-term sustainability and environmental impact.

Along the same practical lines of the educational and economical initiatives, Noble Foundation scientists will be assessing the effective processes and alternatives to improve methods of harvest, transportation and storage.

The ultimate goal of Noble Foundation research and initiatives is to facilitate and foster a strong bioenergy industry in Oklahoma, rejuvenate rural economies and position the state as a leader in the United States biofuels revolution.

Visit www.noble.org to learn more.

DIABETES CENTER FIGHTS DISEASE

Oklahoma is leading the charge against diabetes, which affects more than 20.8 million Americans, or seven percent of the nation's population. With efforts to fight this disease underway across the state, plans for the Oklahoma Diabetes Center in Oklahoma City will give the state a significant role in addressing this growing health problem.

The University of Oklahoma Health Sciences Center (OUHSC) has established comprehensive diabetes operations on the University of Oklahoma (OU) campuses in Oklahoma City and Tulsa. These operations provide statewide leadership in diabetes treatment, research, prevention, information, education and awareness, and access to the latest developments in diabetes care and management through clinical trials. Many of these efforts will be housed in the new center, scheduled for construction at the end of 2008.

"The Oklahoma Diabetes Center will be a national leader in the fight against this disease," said OU president David L. Boren. "The center will allow us to advance our goal of becoming a national and international leader in diabetes research, attracting additional outstanding researchers and first-class scientists and specialists to Oklahoma."

"Nearly $30 million in private and public funds has been raised for the first phase of the diabetes center," said Joseph Ferretti, senior vice president and provost at the OUHSC. "This includes funding from our State Legislature and private gifts provided by the Chickasaw, Choctaw and Cherokee nations, and the Hille and Zarrow foundations of Tulsa, as well as a recent $7 million gift from the Harold and Sue Hamm Foundation of Enid."

Diabetes is more prevalent in minority populations, including Native Americans, African Americans and Hispanic Americans, and is associated with an increased risk for a number of serious, sometimes life-threatening complications. Oklahoma has more diabetics per capita than any other state.

Additionally, diabetes research funding at OUHSC includes multi-year awards of about $30 million. This number is expected to grow as the need for diabetes research increases.

DEAN MCGEE EYE INSTITUTE PLANS $38 MILLION EXPANSION

The Dean McGee Eye Institute (DMEI) research laboratories are wall-to-wall with scientists, technicians, high-tech instrumentation and computers. In each of the past three years, vision researchers based at DMEI ranked in the top ten nationally in competitive vision research grant funding from the National Institutes of Health. Over the past decade, DMEI's research program had the highest rate of growth of any eye institute in the United States.

The result: DMEI is bursting at the seams. "There is no room to recruit new physicians, and we are literally forced to turn away talented, innovative scientists because of insufficient laboratory space," said David W. Parke II, M.D., President and CEO of DMEI. "This is particularly critical considering DMEI scientists will soon receive funding on a grant with a nearly $70 million local economic impact."

To meet the growing needs of this thriving Institute, a new plan will bring a second building, increasing DMEI's current size to more than 150,000 square feet. The new five-floor building will be split between research and patient care, with an adjacent two-story parking deck.

"The scientific impact will be immediate – with the recruitment of eight new scientist teams in fields like retinal molecular genetics, nanotechnology, neuroimmunology and artificial vision," added Parke. The new building will accommodate a net increase in patients of nearly 40 percent. Construction of the $38 million building began in February with completion expected in early 2009.

DMEI emerged in 1975 as a nonprofit organization from the shared vision of a handful of Oklahoma City civic leaders – most notably businessman and philanthropist Dean McGee. Their objective was to build an institute that would contribute to the science of curing blindness and provide Oklahoma with the type of state-of-the-art eyecare normally available in only a few of the largest metropolitan areas.

The Institute is home to more than 40 physicians and scientists, 12 vision research laboratories, a surgery center and 280 support staff. They receive about 140,000 patient visits annually. More than 20,000 of those visits will be made by patients unable to pay for the care they need – patients who will be seen at no (or a drastically reduced) charge.

Today, nearly 40 percent of Oklahoma ophthalmologists have received some portion of their education at DMEI. More than 100 applications are received for each ophthalmology residency position. Nearly 50 percent of DMEI's graduates score in the top 10 percent nationally in board certification examinations. Visit www.dmei.org to learn more.

NEW BIOSCIENCE DEVELOPMENTS

EMERGENT TECHNOLOGIES, INC is focused on turning university science into high-yield commercial opportunities. It successfully launched more than a dozen life-science-related companies based on technologies developed at Oklahoma and Texas universities, including companies providing immunology research tools, cancer/vaccine therapies, clinical diagnostics, and cosmetic formulation chemistry.

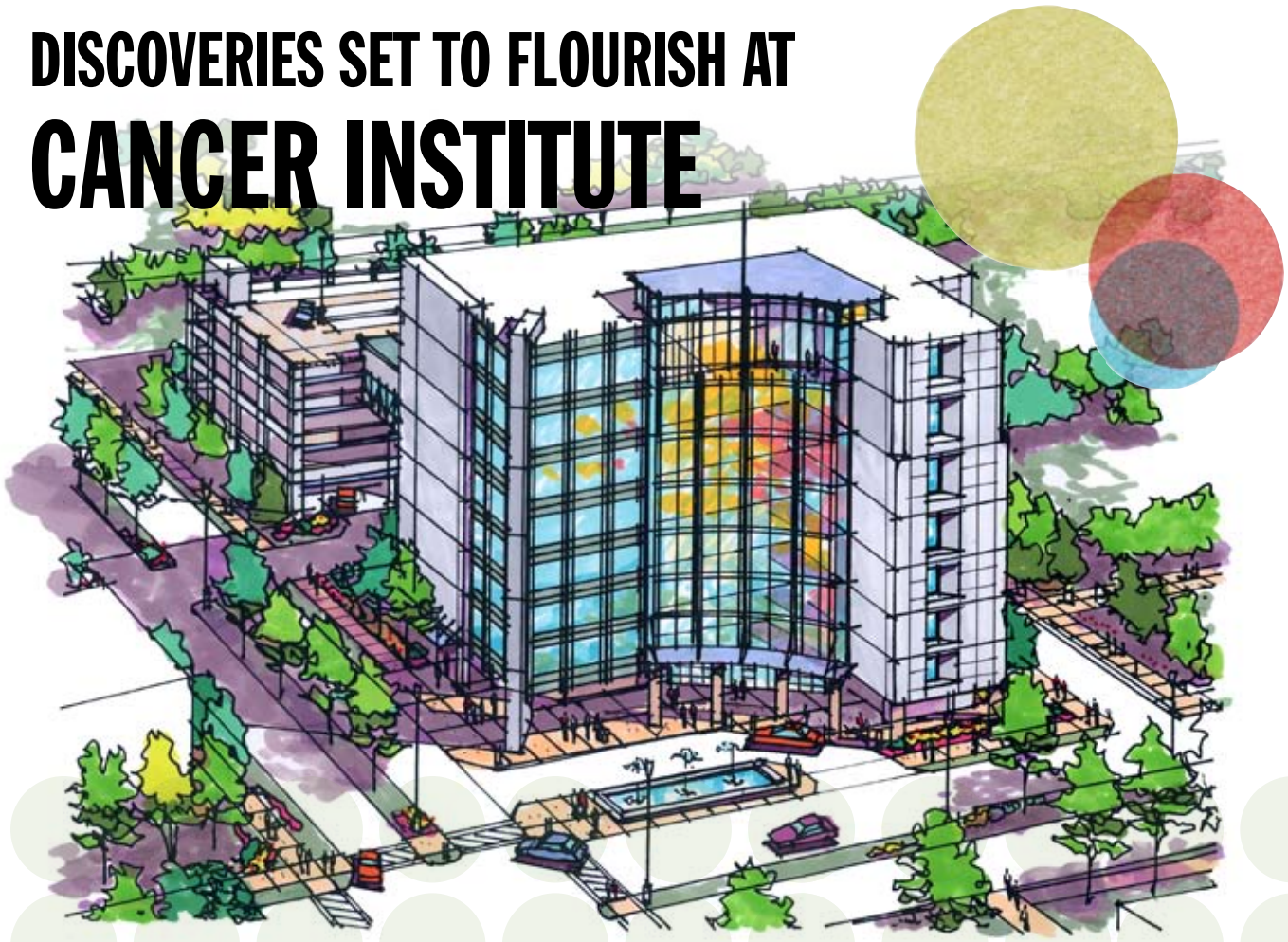
HYALOSE, L.L.C. has developed unique capabilities for the recombinant production of Hyaluronic Acid both in bulk production using fermentation and in enzymatic synthesis, where a very high level of control is possible in determining the exact molecule that is synthesized. Controlled enzymatic synthesis also enables the placement of other glycosaminoglycan sugars and unnatural sugars at precisely defined positions in the sugar chain, creating novel sugar compounds.

ICX NOMADICS has introduced the SensiQ Discovery, which provides quantitative, label-free surface plasmon resonance (SPR)-based analysis to research laboratories and universities in a cost effective, manual instrument SensiQ. Discovery can perform specific analysis applications, which include binding specificity, kinetics, affinity, concentration assays and binding stoichiometry.

INTERGENETICS, INC, a genetic-based cancer-risk testing and cancer treatment company, announced the release of the first genetic-based, breast cancer risk test called OncoVue®. It will be released in the United Kingdom by Opaldia – a leading private genetic medical service in Britain – and incorporates both personal history measures and individualized genetic-based single nucleotide polymorphisms (SNP) to determine an estimate of a woman's breast cancer risk.

PURE PROTEIN, L.L.C., a company created from research at the University of Oklahoma Health Sciences Center (OUHSC), is leading the way to better immunology tools for vaccines and transplant medicine. The company uses proprietary technology to produce Human Leukocyte Antigen (HLA) proteins in unprecedented yields and purities. A new subsidiary, Pure Transplant Solutions, L.L.C., is dedicated to producing diagnostic tools for transplant and transfusion medicine. Pure Vaccine Solutions, L.L.C. is another subsidiary that provides tools that enable better vaccines, focusing on accurately characterizing the immunology at each step of the development process.

DISCOVERIES SET TO FLOURISH AT CANCER INSTITUTE



The University of Oklahoma Cancer Institute (OUCI) is Oklahoma's only academic-based cancer research and treatment center. It is among the nation's top research centers in the areas of cancer chemoprevention research and the clinical research of women's cancers. The OUCI has more than 90 researchers working in all areas of cancer research, with more than $20 million in cancer-related research funding from the National Institutes of Health, American Cancer Society and other funding agencies.

OUCI broke ground in October 2006 on a new 150,000-square-foot building which will house cancer clinics, patient support, clinical research and outreach programs. Construction will be complete in December 2009.

The OUCI is on track to become a National Cancer Institute-designated "comprehensive cancer center." NCI centers have been at the forefront of the fight against cancer, employing a comprehensive approach that integrates basic, translational, clinical and population research. Researchers at these centers, including the OUCI, have made great strides in understanding cancer at the genetic, proteomic and molecular levels. Such advances are rapidly ushering in a new age of targeted therapies and personalized medicine.

Rather than the scattershot approach of traditional chemotherapy treatment, the new generation of medicines attack specific molecular pathways to inhibit tumor growth. This new generation of targeted therapies is the result of advances in research at the molecular level. The OUCI has made a major investment in cancer developmental therapeutics research. This includes a commitment to recruit 20 cancer researchers in the area of drug discovery and development. More than 100,000 square feet of state-of-the-art laboratory space is available in the newly dedicated Stanton L. Young Biomedical Research Center to house these new researchers. This effort is also being supported by a major $90 million fundraising campaign to establish endowed chairs in cancer research.

Groundbreaking cancer research also relies on advanced research and diagnostic technologies that open new avenues for investigation. Research at the genetic, proteomic and molecular levels relies on technologies such as microarray analysis, flow cytometry, immunohistochemistry, pharmacokinetics, etc. Each of these can be found at the OUCI.

In addition, state-of-the-art laboratories to support biotechnology startup companies can be found at the Presbyterian Health Foundation's Research Park, adjacent to the Cancer Institute. This facility provides incubator space for ideas and discoveries by housing multiple biotechnology startup companies that originated at the University of Oklahoma Health Sciences Center and affiliated research centers.

With a progressive plan to leverage existing resources, and with major commitments to the effort on the part of the state and private sectors, drug discovery and development are set to flourish in Oklahoma at the OUCI.

Learn more at www.ouhsc.edu/oucancerinstitute.

DISCOVERIES THAT MAKE A DIFFERENCE

Stephen M. Prescott, M.D.
President, The Oklahoma Medical Research Foundation

The Oklahoma Medical Research Foundation (OMRF) is one of the oldest, most respected independent research institutes in the nation. Our scientists are dedicated to understanding and curing human disease, focusing on critical research areas like cancer and lupus, as well as Alzheimer's and cardiovascular disease.

OMRF employs 50 principal scientists and has a total of 525 employees. In 2006, OMRF scientists filed 11 new invention disclosures and 16 patent applications. Seven U.S. patents were issued, bringing OMRF's total to 132 and maintaining our status as one of the country's leaders in patents-per-investigator.

OMRF discoveries led to the first FDA-approved severe sepsis treatment drug. Sepsis claims the lives of more than 200,000 Americans each year. OMRF researchers have identified the enzyme believed responsible for Alzheimer's disease. And, a drug with OMRF roots – Ceprotin, which is used to treat children with life-threatening blood-clotting complications – became the first drug licensed under the European Union's new centralized procedure.

Discoveries at OMRF have given birth to 11 spin-off companies with a total market capitalization in excess of $1 billion. In September, the first genetic-based breast cancer risk assessment test, created by one of those companies – InterGenetics – became available in selected clinics across the country.

OMRF will continue to expand, adding faculty members and laboratory space to continue our mission: making discoveries that make a difference.

Learn more at www.omrf.org.

SUPPORTING COLLABORATIVE RESEARCH SCIENCE

Michael D. Anderson, Ph.D.
President, Presbyterian Health Foundation

"Fortune favors the bold, but abandons the timid." This proverb is a driving force for good science and for the Presbyterian Health Foundation (PHF). Our mission at PHF is supporting medical research, translational research and the commercialization of new therapeutics and innovative diagnostics that save and enhance human life.

We strive to make the impossible "commonplace" with Oklahoma science. PHF plays a supporting role in funding research primarily at the University of Oklahoma Health Sciences Center (OUHSC) and the Oklahoma Medical Research Foundation (OMRF).

Since beginning in 1985, PHF has funded more than $100 million in grants to bioscience research and programs, and built a biotechnology research park that is home to 50 tenants, valued at more than $100 million. The PHF Research Park is a conduit for incubating new companies in Oklahoma.

In the last five years, researchers, whose chairs or professorships received PHF funding, have brought $65,116,863 of out-of-state income to Oklahoma. Six of these 23 OUHSC researchers received more than $48 million.

Since 1997, we have completed six structures with nearly 600,000 square feet of Class A wet lab and office space available to 50 tenants. Our newest tenants include Rigen, Selexys, Charlesson and Biolytx Pharmaceuticals. There are 1,200 people currently employed at the Park. And, more science companies, more jobs and more promises of helpful products serving human need are on the threshold as we construct our seventh building, adding nearly 150,000 square feet in additional wet lab, office and incubator space. This building is scheduled for completion in July 2008.

Learn more at www.phfokc.com.

LEADING INNOVATION TO COMMERCIALIZATION

Oklahoma Center for Advancement of Science and Technology (OCAST) is a small, innovative, high-impact agency funded by state appropriations and governed by a board of directors with members from both the private and public sector. OCAST works in partnership with the private sector, higher education facilities and the Oklahoma Department of Commerce. OCAST-funded research projects are first reviewed by out-of-state science and business experts and ranked according to scientific merit and commercial potential. In this way, OCAST ensures state funds are wisely invested where they will have the most impact. OCAST is the state's only agency whose sole focus is technology – its development, transfer and commercialization.

Additionally, this technology-based economic development agency works closely with its strategic partners – The Oklahoma Alliance for Manufacturing Excellence, the Oklahoma Technology Commercialization Center and the Inventors Assistance Service – to improve conditions for Oklahoma's technology businesses.

In the past year, OCAST was directed by the Governor's office – in concert with legislation – to administer a $5 million seed capital fund to create a plant science research program, and to competitively fund nanotechnology applications for Oklahoma small businesses.

Longstanding programs at OCAST include applied research, health research, small business research assistance, and research and development intern partnerships.

Learn more about OCAST at www.ocast.state.ok.us.

i2E DEDICATED TO TECHNOLOGY START-UPS

i2E, (Turning Innovation into Enterprise) Inc. is a private, not-for-profit corporation dedicated to facilitating the start-up of new advanced technology companies in Oklahoma. Created in 1998, i2E manages the Oklahoma Technology Commercialization Center and the Technology Business Finance Program, both from the Oklahoma Center for the Advancement of Science and Technology (OCAST).

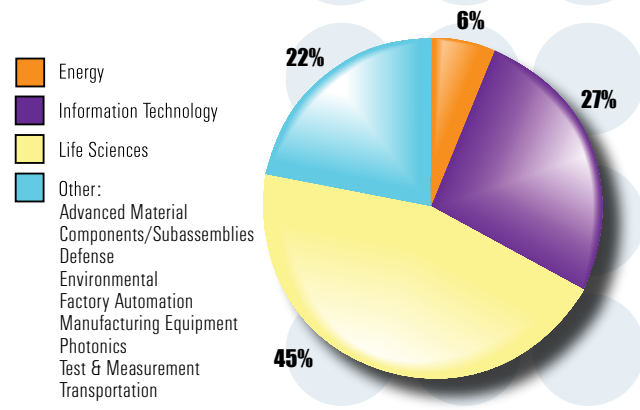
To date, i2E Enterprise Directors have reviewed more than 1,000 technologies leading to the formation of numerous new start-ups in Oklahoma. i2E has become the interface between sources of technology innovation and sources of capital for Oklahoma technology-based companies. Seed and angel investment leading to venture capital is a prime focus of developing advanced technology start-up companies, and i2E is an innovator in establishing the networks and training to match ideas with funding in Oklahoma.

Biotechnology and life science opportunities together represent one-third of i2E's annual portfolio. Annually, i2E's Innovation Services reviews an average of 44 bio and life science opportunities for commercial potential at various research institutions in Oklahoma. An additional 24 bio and life science commercial opportunities are assisted with business development and access to capital each year.

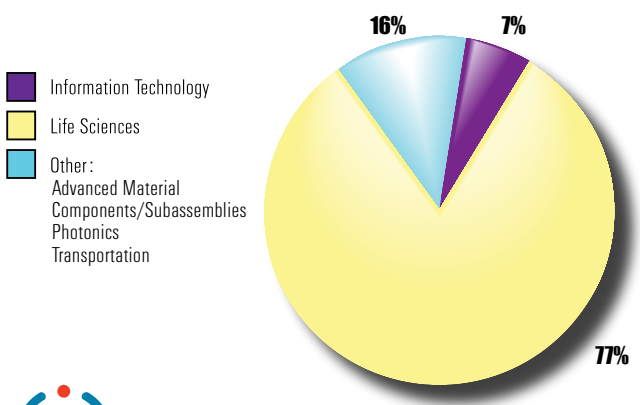
Visit www.i2E.org to for more information.

The charts below represent the industries assisted through i2E Innovation and Commercialization services.

2006 i2E Commercialization Clients Served by Industry



2006 i2E Innovation Clients Served by Industry



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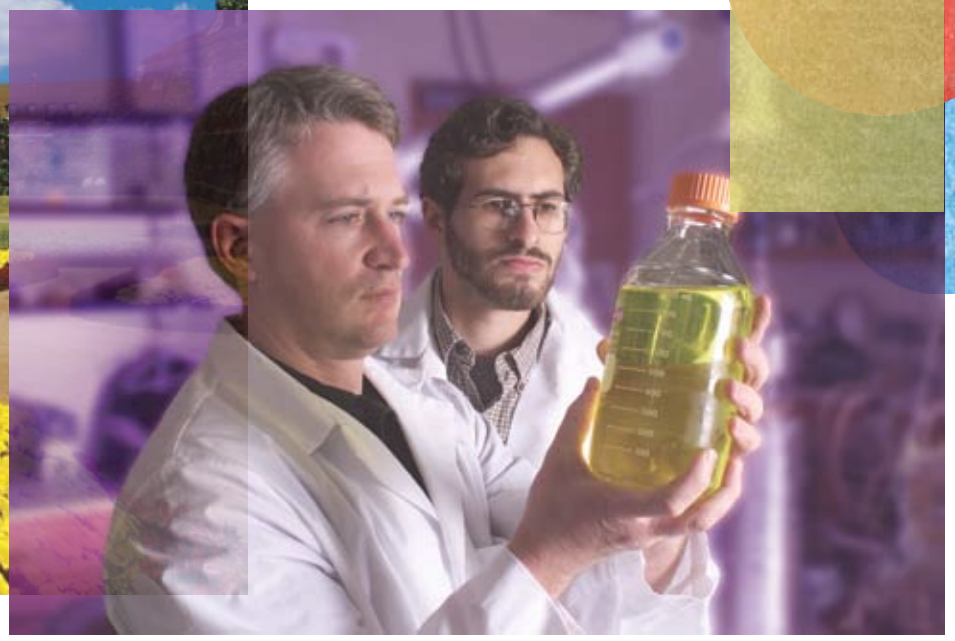

OKLAHOMA STATE UNIVERSITY: BIODIVERSITY BUILDS BRIDGES

Guided by its land-grant mission, Stillwater-based Oklahoma State University (OSU) most notably influences the state through agricultural research, extension and instruction. But, over the course of a century, OSU has evolved into a comprehensive research university emphasizing:

- biosciences research
- energy and environmental research
- sensor and sensor-related research

With the legacy of agricultural excellence as its foundation, OSU's vision for research reinforces efforts to expand the biocorridor in the state.

Jacque Fletcher, OSU plant pathologist, discovered that the resources needed to address a national priority, microbial forensics and agricultural biosecurity, exist right here in Oklahoma. Fletcher's insight was instrumental in bringing together experts needed to make this initiative a reality. Today, she directs the National Institute for Microbial Forensics & Food and Agricultural Biosecurity, performing the only research of its kind in the country. *E. coli* outbreaks, mad cow disease, and the recent anthrax scare are troubling examples of why this critical research is needed.

President George Bush and Oklahoma's Governor Brad Henry have both called for alternative fuels programs in response to the nation's increasing demand for energy. OSU's "grassohol" research, led by Ray Huhnke, professor of biosystems and agricultural engineering, will play an important role in reducing the country's gasoline consumption by producing ethanol from switchgrass. An OSU study predicts a 100-million-gallon-per-year biomass-to-ethanol conversion facility would provide more than $25 million to local farmers.

At OSU's Center for Veterinary Health Sciences (CVHS), Guangping Chen received three grants this past year valued at more than $1.5 million for research on drug-metabolizing enzymes. Chen's research on sulfotransferases will have a significant impact on human health. William Barrow received additional funding from the National Institutes of Health (NIH) for an expanded drug screening program. The funding allows Barrow's team to screen more drugs with robotics and perform assays – an invaluable resource for NIH researchers. NIH has awarded $7.9 million to the CVHS for its drug screening program.

An interdisciplinary research team from the OSU-Center for Health Sciences (CHS) and OSU-Stillwater has developed ways to capture information from biomedical signals. The result is the OSU Center for Biomedical Signal Analysis and Integrative Diagnostics, which promises to advance diagnosis and treatment of cardiovascular disease. The OSU partners, led by Bruce Benjamin, CHS, and Ranga Komanduri, OSU-Stillwater, crafted computerized diagnostic systems that work together to harness the signals and pinpoint problems.

Learn more at www.vpr.okstate.edu.

OKLAHOMA'S BIOSCIENCE INDUSTRY

- More than **44,000** people are directly employed in Oklahoma's bioscience industry.
- The economic impact of direct jobs is **$1.95 billion**.
- Total employment (including spin-off jobs) generated by the industry exceeds **90,000**.
- The total economic impact (including spin-off jobs) of the bioscience industry is **$3.4 billion**.
- Oklahoma's bioscience sector consists of two major components: bioscience goods and services; and bioscience research and education.
- Overall estimated bioscience goods and services production employment is **39,862 people**.
- The employment estimate for bioscience research and education is **4,574 people**.

PARTNERSHIP SERVICES:

TOOLS FOR BUSINESS

OKLAHOMA BIOSCIENCES CLUSTER

Oklahoma's evolving Bioscience Cluster has key assets throughout the state, including Ardmore to the south; Edmond, Norman and Oklahoma City in central Oklahoma; and Stillwater, Ponca City and Tulsa in the northeast. Oklahoma's Bioscience industry encompasses a wide range of research and business concerns that are attracting state and national support, as well as growing international interest.

The Greater Oklahoma City Chamber is one of several organizations deeply committed to developing this important industry, whose economic impact in Oklahoma is more than $3.4 billion. More than 44,000 people are directly employed in this cluster, working at more than 400 companies and organizations.

For more information on Oklahoma's Bioscience Cluster, contact:
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OKLAHOMA BIO

OKLAHOMA BIO: DISCOVERING OUR FUTURE