



# ST. LOUIS BIOBELT NEWS

The latest news and information from the St. Louis region.

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(L-R) Steven Lipstein, President and Chief Executive Officer of BJC HealthCare; Larry Shapiro, Executive Vice Chancellor for Medical Affairs and Dean of Washington University School of Medicine; Mark Wrighton, Chancellor of Washington University in St. Louis; and Paul McKee Jr., Board Chair for BJC HealthCare, break ground at the site of the new BioMed 21 building.

## BJC Institute of Health at Washington University will Serve as Hub for BioMed 21

BioMed 21 is designed to accelerate scientific discovery and bring medical breakthroughs to the patient bedside faster

www.bjc.org www.wustl.edu

The largest building ever constructed on the campus of Washington University School of Medicine in St. Louis will be the hub for BioMed 21, an innovative research initiative to coordinate the efforts of scientists from different disciplines, allowing them to share their work and cooperate more effectively, creating a new kind of powerful research synergy.

Washington University School of Medicine and Barnes-Jewish Hospital are building the \$235 million, 700,000-square-foot facility with the help of a \$30 million gift over five years from BJC HealthCare. The building is named the BJC Institute of Health at Washington University.

“The BJC Institute of Health at Washington University will be home to research that brings together gifted physicians, scientists and researchers with a common goal – to find new and better ways to improve human health, including new treatments and potential cures for the diseases most prevalent in our society,” says Steven Lipstein, BJC HealthCare president and CEO.

As the hub for BioMed 21, the new building will house the initiative’s five Interdisciplinary Research Centers (IRCs). The IRCs will each focus on research in a disease-specific area: cancer genomics, diabetic cardiovascular disease, neurodegeneration, women’s infectious disease, and membrane excitability

disorders. Each IRC will employ researchers from several different scientific disciplines and academic fields.

“We knew that bringing researchers together in a dedicated, state-of-the-art facility would be the best way to advance discoveries more quickly,” said Larry Shapiro, M.D., executive vice chancellor for medical affairs and dean of the School of Medicine. “We are convinced that this nexus of skills and knowledge will soon yield the breakthrough concepts and new treatments that will continue changing the face of medicine.”

Located in the heart of the Washington University Medical Center campus, the building will be in immediate proximity to: the School of Medicine, Barnes-Jewish Hospital, St. Louis Children’s Hospital, the Center for Advanced Medicine and the Alvin J. Siteman Cancer Center. A landscaped plaza will front the building, continuing efforts to create a pedestrian-friendly campus. Another goal is achieving Leadership in Energy and Environmental Design (LEED) certification recognizing green building projects that protect the environment and create a healthy place to work.

The new facility, which will also house academic departments of the School of Medicine, as well as several support operations of Barnes-Jewish Hospital, is scheduled to open in December 2009. ■

## Millipore Adding Space and Scientists at Drug Discovery Unit

Unit provides life sciences research products and services

www.millipore.com



Massachusetts-based Millipore Corp. is investing \$3.4 million to add space and plans to hire 60 more employees, primarily master’s degree and doctoral-level scientists, as the company expands its Bioscience Drug Discovery and Development headquarters in the Missouri Research Park in St. Charles County. Millipore’s 14-acre campus occupies three buildings and employs nearly 200.

To make way for the expansion, Millipore is renovating 17,000 square feet of space in a 72,000-square-foot building that serves as a center for the BioPharma Services. The renovation will allow BioPharma to build a new laboratory and additional office space.

Millipore’s drug discovery unit provides life sciences research products and services for large pharmaceutical and biotech companies. ■

## Metabolix and Danforth Plant Science Center Partner to Develop Crops for Bioplastic and Biofuel

Plant Science Center and new Biopark attract Boston company to area

www.metabolix.com

and the state to become,” said Ron Monsee, executive director of the Missouri Technology Corp., which provided the grant. “Metabolix is hopefully the first of many examples of plant biotechnology companies that are going to be finding their way to Missouri.”

Boston-based Metabolix has announced a strategic initiative that will establish a research and development presence in St. Louis. Under the agreement, a team of Metabolix scientists will work with accomplished oilseed experts at the Donald Danforth Plant Science Center. This collaboration is supported by a 2-year, \$1.14 million grant from the Missouri Life Sciences Trust Fund to the Danforth Center.

“It’s exactly what the civic leadership in St. Louis has been positioning St. Louis

Metabolix, a bioscience company focused on developing environmentally-sensitive solutions for plastics, fuels, and chemicals, plans to develop an advanced industrial oilseed crop to produce bioplastics. ■

## Pfizer Puts St. Louis on the Cutting Edge of Pharmaceutical Research

Drug maker is investing \$250 million in two research buildings

www.pfizer.com



In a move to further build its capacity to create new, advanced medicines, Pfizer is nearly doubling the size of its existing 60,000-square-foot Good Manufacturing Practices biotherapeutics pilot plant (Building JJ) at its 200-acre Global Research and Development campus in Chesterfield, St. Louis County.

The pilot plant, the only one of its kind within the Pfizer organization, produces biotherapeutic compounds – novel new medicines derived from cell lines – that can be utilized to treat serious illnesses that may not have responded to other drug treatments.

While the expansion of the pilot plant facility represents a \$50 million

investment, it is one of two research buildings under construction on the company’s campus. A \$200 million, 300,000-square-foot facility will be the new home for 250 of the company’s researchers that currently work in other facilities across the St. Louis metro.

Pfizer foresees significant growth potential for biotherapeutics, targeting to increase output of the drug candidates to 20 percent of its internal R&D portfolio. Once complete, the expanded Building JJ will play a significant role in helping Pfizer reach its 10-year goal of delivering at least one new biotherapeutic drug launch each year.

Together, these expansion projects will place the St. Louis region on the cutting edge of pharmaceutical research.

Pfizer employs nearly 1,200 in the St. Louis region, with almost 1,000 in research. ■

“As **agricultural biotechnology** enters its ‘**second wave**’

– in which products are enhanced for the supermarket shoppers rather than just the farmer (for example, soy beans that are omega-3 enriched rather than just drought-resistant) – **the St. Louis area** is poised to **become the paramount region for the industry** in the Americas.

—NATURE, March 2008



A \$36.1 million, 118,000-square-foot laboratory and office complex is the first of three new buildings in the Bio-Research & Development Growth Park at the Danforth Center. The construction is a joint venture between the Donald Danforth Plant Science Center in St. Louis and Maryland-based Wexford Science+Technology.

## Danforth Plant Science Center and Wexford Science+Technology Building Life Science Biopark

Development reflects St. Louis’ national reputation for emerging life science companies

WEXFORD  
SCIENCE+TECHNOLOGY  
www.wexfordequities.com

www.danforthcenter.org



The Donald Danforth Plant Science Center and the Maryland-based Wexford Science+Technology are constructing an 118,000-square-foot multi-tenant, post-incubation, wet laboratory and office complex on the Danforth Center campus in Creve Coeur, St. Louis County. The \$36.1 million project is the first of three new buildings in what is called the Bio-Research & Development Growth Park (BRDG) at the Danforth Center.

“We recognized the increasing demand for larger lab and office space from companies in St. Louis’ science-focused business incubators,” said Wexford president James R. Berens. “In 2007, it became clear that the companies in the NIDUS Center and the Center for Emerging Technologies needed larger lab and office space, and were interested in remaining close to the

Danforth Center, where these companies currently receive valuable scientific counsel and access to state-of-the-art facilities and equipment that these businesses otherwise could not afford.”

The companies within the BRDG will have access to the Danforth Center’s high tech infrastructure, including greenhouses, microscopy and proteomics facilities, and growth chambers.

Wexford Science+Technology develops facilities for high technology and life sciences companies. The company has responded to strong growth of plant and life science companies in St. Louis.

The Donald Danforth Plant Science Center is a not-for-profit research institute whose mission is to improve the human condition through plant science. ■

## Center Ethanol Plant Nears Completion

\$100 million plant will produce 54 million gallons of ethanol annually

www.centerethanol.com



The Center Ethanol Co. has reached the milestone of its first grind at its new \$100 million ethanol plant on 57-acres in the village of Sauget, St. Clair County, Ill.

Once the plant is fully functional, it will produce 54 million gallons of ethanol

annually. In addition, the plant will produce 172,000 tons of dry distillers grain and up to 150,000 tons of carbon dioxide as saleable by-products.

The plant is designed to accommodate an expanded production of 108 million gallons of ethanol per year. ■

### UNIVERSITY RANKINGS

#### TOP MEDICAL SCHOOLS – RESEARCH MEDICAL SCHOOLS

1. Harvard University
2. Johns Hopkins University
3. Washington University in St. Louis

#### TOP LAW SPECIALTIES – HEALTHCARE LAW

1. Saint Louis University
2. University of Houston
3. University of Maryland

Source: U.S. News & World Report, April 7, 2008



The Solae Company's new 165,488-square-foot headquarters is an anchor of St. Louis' CORTEX life sciences district. The facility houses research and development labs and a pilot soy protein processing plant that allows clients and researchers to create new products on site.

## Solae's New Headquarters as Forward-Thinking as the Company it Houses

Advanced facility to serve as an anchor for life sciences corridor development

www.solae.com



development labs, along with a pilot plant – a miniature version of its soy protein processing plants – that will allow clients and researchers to collaborate to create new recipes and products on site.

Solae's new home in the CORTEX (Center of Research Technology and Entrepreneurial Exchange) life sciences district is not only consolidating the company's 400 St. Louis employees into one location, the innovative design of the new 165,448-square-foot headquarters is a representation of the progressive way the soy protein giant does business.

Careful design and construction of the facility has led Solae to pursue LEED certification for its headquarters. LEED certification focuses on five aspects of a project: site development sustainability, water savings, energy efficiency, materials selection, and the quality of the interior environment.

In addition to providing a home for the company's business operations, the new facility houses research and

Solae's new location is an anchor of CORTEX, a nonprofit collaboration that composes the midtown St. Louis life science corridor. Anchor institutions in the district include BJC HealthCare, Center for Emerging Technology, Missouri Botanical Garden, Saint Louis University, and Washington University.

"We wanted to be in a life sciences area," Mary Shelangouski, Solae's director of facilities said. "We have a commitment to the city, and the demographics of our employees tell us that it makes sense to stay in St. Louis."

Solae is an alliance between DuPont and Bunge Limited to bring great-tasting, nutritious soy-based foods to the marketplace. ■

## Washington University and Pfizer Extend Biomedical Research Partnership

Agreement represents a new model of academia and industry collaboration

www.wustl.edu



www.pfizer.com



In a move designed to speed the application of research breakthroughs towards treatment therapies for patients, Washington University in St. Louis and pharmaceutical giant Pfizer have initiated a \$25 million, five-year biomedical research partnership.

"We believe both partners stand to benefit from this agreement," says Jeffrey Gordon, M.D., director of the University's Center for Genome Sciences. "It combines the strengths and interests of both institutions while advancing the level of basic and clinical research in the St. Louis region. The agreement also creates a new model of collaboration between academic and industry researchers that will ultimately benefit society, too."

The collaboration will concentrate on the study of immuno-inflammatory disorders, a particular area of interest for Pfizer and one in which Washington University School of Medicine has

internationally renowned scientific expertise. Immuno-inflammatory disorders include arthritis and related diseases of the bone and cartilage, atherosclerosis, asthma, and chronic obstructive pulmonary disease. Research will take place both in the labs at Washington University and on Pfizer's campus in Chesterfield, St. Louis County.

"I'm delighted that we continue to innovate and find more effective models to interact with universities and research partners," says Karen Seibert, Ph.D., head of inflammation research for Pfizer. Pfizer's research and development operations include 250 laboratories employing about 1,200 in the St. Louis region.

Washington University School of Medicine is one of the leading medical research, teaching, and patient care institutions in the country, and is currently ranked third in the nation by *U.S. News & World Report*. ■

## Leica Microsystems Acquires St. Louis Maker of Instruments for Medical/Research Labs

Growth is planned in St. Louis

www.leica-microsystems.com



The German company Leica Microsystems recently acquired the assets of Coretech Holdings and McCormick Scientific (Coretech), expanding the company's position in histopathology. Leica Microsystems is a leader in histology, among other fields.

Now part of Leica Microsystems, the St. Louis location provides an extensive range of systems, instruments, reagents and consumables for the clinical and

research histology laboratory. The St. Louis location is Leica Microsystem's only manufacturing operation in North America.

"We should see substantial growth in revenue and size of the footprint of the company here in St. Louis," said Doug Martin, vice president and general manager of Leica Microsystems' St. Louis facility.

Coretech is based in Berkeley, St. Louis County and operates a manufacturing plant in Earth City, also in St. Louis County. ■

## Danforth Plant Science Center Increasing Biofuel Research Capacity

Center has new greenhouse under construction

www.danforthcenter.org



such as switchgrass and corn – that will be used in biofuels research.

The Donald Danforth Plant Science Center is doubling its greenhouse capacity. The \$5.25 million greenhouse is expected to be completed by fall 2008, and will feature approximately 3,000 square feet of space with higher ceilings to accommodate taller plants –

"Expansion of the greenhouse is vital to growth of our research programs, including research of scientists that will be part of the Enterprise Rent-A-Car Institute for Renewable Fuels," said Danforth Center president Dr. Roger N. Beachy. "Furthermore, the facility will be available to local plant science start-up companies that need greenhouse space."



Saint Louis University dedicated the new Edward A. Doisy Research center in December 2007. Researchers housed in the 206,000-square-foot facility will focus on medical treatments of cancer, liver disease, heart and lung disease, aging and brain disease, and infectious disease.

## State-of-the-art Biomedical Research Facility Dedicated at Saint Louis University

At \$82 million, the Doisy Research Center is the largest construction project in University's history

www.slu.edu



With the December 2007 dedication of the Edward A. Doisy Research Center, Saint Louis University continues its leading role in cutting-edge medical research. The Center is named for the Nobel Laureate, the late Dr. Doisy, who was a professor at the University world renowned for his pioneering work in biochemistry and his discovery of the chemical property of vitamin K.

The 206,000-square-foot center's 80 research labs are designed with an open configuration intended to encourage intellectual sharing and collaboration between research groups. Research at

Saint Louis University School of Medicine is focused on developing new treatments in five key areas: cancer, liver disease, heart and lung disease, aging and brain disease, and infectious disease.

Shortly before the Center's dedication, the University was awarded a \$23.7 million, seven-year contract by the National Institutes of Health (NIH) to grow its research into advanced therapies and vaccines to treat infectious diseases.

The building's construction was also forward thinking – nearly 80 percent of its construction waste created was subsequently recycled. And the 'green' roof system over a section of the building is planted in sedum, a low growing, water-conserving plant that can help regulate the building's interior temperature. ■

### RESEARCH BRIEFS



http://mednews.wustl.edu/news

#### Washington University Reveals Corn Genome Draft Sequence

A team of scientists, led by Washington University in St. Louis, has completed a working draft of the corn genome, an achievement that should speed the development of better crop varieties to meet growing demands for food, livestock feed, and fuel.

"There's a lot of great research on the horizon," said Ralph S. Quatrano, Ph.D., the Spencer T. Olin Professor and chair of Washington University's Department of Biology. "The genome will help unravel the basic biology of corn. That information can be used to look for genes that make corn more nutritious or more efficient for ethanol production, for example."

The National Science Foundation (NSF), the U.S. Department of Agriculture, and the U.S. Department of Energy combined to fund the \$29.5 million project. ■



www.monsanto.com

Mendel Biotechnology, Inc.  
www.mendelbio.com

#### Monsanto and Mendel Biotechnology Announce Cellulosic Biofuels Collaboration

Monsanto Company and California-based Mendel Biotechnology, Inc. are collaborating to enhance the development of Mendel's BioEnergy Seeds & Feedstocks business. In this new collaboration, the two companies will apply Monsanto's industry-leading expertise in crop testing, breeding and seed production to perennial grass seed varieties Mendel is developing for use in biofuels and other commercial applications.

"Monsanto has been committed to providing farmers with higher grain yields to help them meet demand for food, feed and fuel," said Steve Padgette, vice president of biotechnology at Monsanto. "This collaboration has the potential to advance discoveries in the next frontier: cellulosic biofuels. It also presents both companies an opportunity to broaden our understanding of the strengths and potential applications of biomass grasses to biofuels productions." ■

### START-UP COMPANY BRIEFS



www.veranmedical.com

#### Veran Medical Technologies Relocates Headquarters to St. Louis

Veran Medical Technologies, a medical device startup, is relocating its headquarters from Nashville to St. Louis to build relationships with the St. Louis medical community.

The young company has also secured \$4.75 million in venture capital and private financing to drive adoption of its IG4 delivery system for minimally-invasive biopsy and ablation of cancer. St. Louis-based Prolog Ventures led the round and was joined by Advantage Capital Partners and existing private investors. ■



http://mednews.wustl.edu/news

#### Major Human Genomes Sequencing Project to Feature Washington University

The ambitious "1000 Genomes Project" to create detailed understanding of human genetic variation will rely on the expertise of an international collaborative of research teams, and Washington University School of Medicine will play a leading role.

The project will involve sequencing the genomes of at least a thousand people from around the world to develop a new map of the human genome that will create a detailed view of medically relevant DNA variations in unparalleled resolution. The data gained from the project promises to radically improve understanding of the genetic factors underlying common diseases.



www.mobiustherapeutics.com

#### Mobius Granted FDA Designation for New Glaucoma Therapy

Trabomycin™, a product of Mobius Therapeutics, LLC, was recently given an orphan drug designation by the U.S. Food and Drug Administration. The designation grants the company seven years of market exclusivity for the drug, designed to deliver antifibrotic agents during glaucoma surgery.

Mobius, an early-stage venture dedicated to developing solutions to aid glaucoma surgery, relocated to St. Louis from Atlanta in 2007. ■

"A project like this would have been unimaginable only a few years ago," says Elaine Mardis, Ph.D., co-director of the University's Genome Sequencing Center, and one of the project's lead investigators. "We now have the ability to examine in intimate detail variations in the genetic code that differ from person to person."

The sequencing work will be carried out at the Sanger Institute, BGI Shenzhen and the National Human Genome Research Institute's Large-Scale Sequencing Network, which includes the Broad Institute of MIT and Harvard; the Washington University Genome Sequencing Center at the Washington University School of Medicine in St. Louis; and the Human Genome Sequencing Center at the Baylor College of Medicine in Houston. ■



The St. Louis Regional Chamber & Growth Association partners with the City of St. Louis and the surrounding 15 counties in the bi-state St. Louis region to provide a seamless, one-stop resource dedicated to your success. For fast, easy access to information on the plant and medical sciences in the St. Louis region, please call us at (314) 231-5555 or visit us on the web at [www.stlouisbiobelt.org](http://www.stlouisbiobelt.org) or [www.gotostlouis.org](http://www.gotostlouis.org) and click on the economic development link.