



ST. LOUIS BIOBELT NEWS

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

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www.biobelt.org www.stlrcga.org



Artist rendering of the new, \$36 million, state-of-the-art, multi-tenant laboratory building located in mid-town St. Louis.

Corporate Growth Accelerates Plant and Biomedical Sciences in St. Louis

www.mallinckrodt.com

Mallinckrodt Pharmaceutical Group Expands R&D

Mallinckrodt, a division of Tyco Healthcare, is expanding its St. Louis research and development efforts by moving parts of its pharmaceutical group to Webster Groves. The new, world-class, 65,000-square-foot building will house 100 scientists, including more than 25 new researchers. According to the company, moving researchers to one location not only improves communication, it makes room for growth in the chemical division. "This move will further solidify St. Louis' growing reputation as a vital center for science and technology," explained Mike Collins, president of Mallinckrodt's pharmaceutical division.

www.pfizer.com



Pfizer Focuses Worldwide Biologics Development in St. Louis

Pfizer, the world's largest pharmaceutical company, sees the St. Louis area as fertile ground for drug discovery and development. Its St. Louis facility in Chesterfield is one of the company's six major research sites around the world. Each site specializes in the creation of medicines for various groups of diseases. In addition, Pfizer has located its global center for biologics in St. Louis. In St. Louis, Pfizer is focused on discovering and developing new medicines for treating pain and inflammation, heart disease, and Chronic Obstructive Pulmonary Disease (COPD) and asthma. "Pfizer has already invested more than \$60 million in St. Louis said Dan Getman, Pfizer St. Louis Site Director. "The designation of the St. Louis research and development site as a Global Center of Emphasis for human biologics is proof that Pfizer is committed to expanding its presence in the area of therapeutic proteins."

Sigma-Aldrich is collaborating with the Donald Danforth Plant Science Center on the development of new plant biotechnology research tools and with Caliper Life Sciences of Hopkinton, MA, to develop and market automated solutions to speed drug discovery and research.

In other news, Sigma-RBI collaborator Aaron Ciechanover was awarded the 2004 Nobel Prize in chemistry, along with Avram Hershko and Irwin Rose, for the discovery of ubiquitin-mediated protein degradation.

www.lincodiagnosics.com



Linco Diagnostic Builds Five New Labs

Linco Diagnostic Services, located in the Missouri Research Park in St. Charles, has completed a 52,000 square-foot expansion, including five state-of-the-art labs, sample management compliance facilities and high tech security systems. The company conducts laboratory analysis of testing kits for high-growth research areas including obesity, cardio vascular disease, diabetes, osteoporosis and arthritis.

www.monsanto.com

Monsanto Retains EU Approval for Biotech products

Fifteen Monsanto biotech products, including biotech corn, cotton, soybeans and canola, were among those included in the European Commission's recent announcement allowing continued use. "This is great news for American farmers, says Hugh Grant, Monsanto chief executive officer. "This action by the EU has the potential to open additional marketing options for U.S. farmers." Monsanto is a leading global provider of technology-based solutions and agricultural products headquartered in St. Louis. This year, marks the 10th season that biotech crops will

CORTEX Builds New Biotech Center

170,000-square-foot Facility is Under Construction in the City's Biotech Corridor



CORTEX, The Center of Research, Technology and Entrepreneurial Exchange, is developing a state-of-the-art facility in the heart of St. Louis.

The new building, expected to be finished in late 2005, will provide 170,000 square feet of space for biotech companies that are ready to move out of the incubator. It is located in the City's biotech corridor between the Washington University School of Medicine and Saint Louis University.

St. Louis start-up Stereotaxis has confirmed it will lease 50,000-square-feet in the new building. The company, which designs, manufactures and markets advanced cardiology instrument control systems for use in cath labs, recently completed an IPO that raised \$44 million. Stereotaxis is currently housed in the nearby Center for Emerging Technologies incubator.

This is the first of what CORTEX hopes is a steady stream of biotech development in the district. "This is the initial building and this is where the focus will start. As there's more demand, we'll redevelop or build more," says John Dubinsky, president of CORTEX.

CORTEX is a collaboration of several life science research heavyweights with a shared vision and commitment to developing an urban biotech district.

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—John Dubinsky, president of CORTEX

The institutions include Washington University School of Medicine, Barnes-Jewish Hospital, the Missouri Botanical Garden, Saint Louis University School of Medicine and the University of Missouri-St. Louis.

National Corn-To-Ethanol Research Center Receives \$2 million in Grants



Grants and Private Investments Fuel Growth at Research Center

www.siue.edu/ETHANOL

The National Corn-to-Ethanol Research Center (NCERC) on the Southern Illinois University Edwardsville campus has received four grants totaling more than \$2M and corporate donations of equipment and supplies of over \$3M since the pilot plant began operating last fall.

The center is designed to support the research and development of various processes when ethanol is produced from corn or its components through fermentation. It is the only facility in

the world that fully emulates both a corn wet-mill and dry-mill commercial fuel ethanol production center.

Private clients from across the country and abroad have come to the \$20-million NCERC facility to plan experiments for testing new ethanol production processes. The Center is currently conducting its fourth plant trial and has a number of contracts for laboratory services. The NCERC continues to seek individuals with an interest in renewable fuels to assist the Center as volunteers or with their private donations.

Donald Danforth Plant Science Center Receives \$50 Million Matching Grant

Grant Will Create an Endowment Fund for the Center

www.danforthcenter.org



The Danforth Foundation has awarded the Donald Danforth Plant Science Center a \$50 million matching grant to establish long-term funding for the research institute. The Foundation will match dollar for dollar money raised from other non-restricted funds through December of 2010.

"The Foundation made this significant commitment as a challenge because its Board believes that the Center, while still young, is important to the St. Louis region and to the wider world," said Danforth Foundation board member and Danforth Center Chairman, Dr. William Danforth. "We see the Center as a gift to St. Louis, and St. Louis' gift to the world."

The Donald Danforth Plant Science Center is a not-for-profit research institute founded in 1998. It employs about 200 scientists at its Creve Coeur location. "The Foundation's generous commitment will enable our scientists to continue their research in plant science that will lead to increased agriculture production, more nutritious food and a cleaner environment. These applications will improve the lives of people around the world," says Dr. Roger N. Beachy, president of the Plant Science Center.

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—Dr. William Danforth, Danforth Foundation board member and Danforth Center Chairman

For a comprehensive overview of the BioBelt's plant sciences strengths, please visit www.danforthcenter.org/plant_science_booklet.pdf.



Pfizer's St. Louis research facility is the company's global center for biologics.

www.kvpharmaceutical.com



KV Pharmaceutical Adds 300 Jobs

Due to tremendous growth, KV Pharmaceutical Co. is expanding the company's facilities in Bridgeton, Earth City and Maryland Heights and is planning to add 300 new jobs. KV Pharmaceutical produces and markets various drugs and has developed innovative drug delivery technologies designed to improve therapies and patient compliance.

www.sigmaaldrich.com



Sigma-Aldrich Develops Strategic Alliances

St. Louis-based Sigma-Aldrich is a leading life science and high technology company whose biochemical and organic chemical products and kits are used in scientific and genomic research, biotechnology, pharmaceutical development, the diagnosis of disease and chemical manufacturing. The company has teamed up with St. Louis start-up Chlorogen, which is headquartered in the Nidus Center for Scientific Enterprise, to develop the company's patented chloroplast transformation technology that utilizes proteins from tobacco plants in drug development.

be planted throughout the world. U.S. grower groups recently marked the one-billionth acre of biotech seed planted worldwide.

www.gatewaymedical.com

Gateway Medical Research Expands

With its recent expansion, Gateway Medical Research Inc. is now the world's largest generic drug testing center. Located in St. Charles, Gateway Medical has doubled its space to 105,000 square feet and can accommodate up to 500 volunteers.

www.centocor.com



Centocor Biologics Marks First Year in St. Louis

The Pennsylvania-based Centocor, Inc. marked the first year of operating Centocor Biologics, LLC in Berkeley in April. The 250,000-square-foot manufacturing site has grown from 260 employees to over 300 and Centocor has also invested in facility modifications and capacity expansion. Centocor Biologics produces clinical stage and commercial biomedicines for use in therapeutic areas such as immune-related disease and oncology. Centocor is a member of the Johnson & Johnson family of companies.

UNIVERSITY RANKINGS

TOP MEDICAL SCHOOLS – RESEARCH MEDICAL SCHOOLS

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

Source: U.S. News & World Report, April 11, 2005

2004 NIH AWARDS AMONG MEDICAL SCHOOLS

1. Johns Hopkins University	\$449.1 million
2. University of Pennsylvania	\$393.6 million
3. University of California — San Francisco	\$379.8 million
4. Washington University in St. Louis	\$371.7 million

Source: 2004 National Institute of Health Data Tabulated by the St. Louis RCGA

TOP LAW SPECIALTIES – HEALTHCARE LAW

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

Source: U.S. News & World Report, April 11, 2005

St. Louis Venture Capital Funds Near \$1 Billion Mark

Thirteen Funds with Nearly \$1 Billion Under Management are Headquartered in the Area.

The St. Louis area's biotech industry continues to attract the attention of venture capitalists from across the country, and across the globe with half of the \$925 million under management dedicated to biotech.

Three new funds, raising close to \$200 million, were established in 2004. In addition, venture capitalists invested \$120 million in 19 area companies—10 of which are in the life science/medical field; and eight others are in IT. Since 2000, over \$800 million of venture capital has been invested in St. Louis tech companies. Venture capital funds from several states as well as Europe participated in these financings.

Three New Funds Drive St. Louis Investment

The Vectis Life Sciences Fund I, a fund-of-funds established to help provide funding for the St. Louis plant and biomedical sciences, is managed by Peter Brooke, founder of the Boston-based Advent International Corp. "The science that has emerged from both Washington University and Saint Louis University is absolutely remarkable. The venture capital community here reminds me of Boston in the 1970s. St. Louis has all the raw materials to become a great region for venture capital investment," says Mr. Brooke. Closed with \$81.5 million in capital, Vectis invests in St. Louis and national venture funds attracted to St. Louis' science base and potential deal flow.

www.prologventures.com



Prolog is an early-stage venture capital fund specializing in life sciences and related technologies. Its second fund, Prolog II, is scheduled to close at \$50 million in June 2005. According to the fund's managers, the high rank of St. Louis in NIH funding presents a unique opportunity to maximize the fund's return on investment.

www.oakwoodmedical.com

Oakwood Medical Investors IV Fund, which closed in 2004, totals \$43 million in funds invested in life sciences. This is the fourth and largest fund created by Oakwood. The fund so far backs two companies that will bring cancer research programs to St. Louis facilities.

www.tmv.com



Regional Venture Firm Opens Offices in St. Louis

Triathlon Medical Ventures, a Cincinnati-based biomedical fund, has opened an office in St. Louis to access

the area's emerging biotech opportunities. With \$96 million under management, Triathlon sees St. Louis as a compelling location. "St. Louis stood out by having world-class biomedical research, sophisticated local early-stage venture capitalists, two life science incubators and a life science seed fund," explains John Rice, managing partner.

"The science that has emerged from both Washington University and Saint Louis University is absolutely remarkable . . . St. Louis has all the raw materials to become a great region for venture capital investment."

—Peter Brooke, Advent International Corporation

www.archdevelopmentpartners.com



ARCH Development Partners is a seed-stage life sciences fund with \$30 million under management that collaborates with universities and communities. Establishing a St. Louis presence was a logical next step for the Chicago-based fund. Tom Churchwell, managing partner, explains, "ARCH is excited about the St. Louis opportunity because it offers a combination of great science and technology, a sophisticated management pool and civic commitment to creating a successful environment."

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—John Rice, Triathlon Medical Ventures

Regional Leaders Create New Angel Investor Network

Group Offers Further Investment Opportunities

www.stlouisarchangels.com

In addition to the nearly \$1 billion under management by venture capitalists in St. Louis, regional leaders have created another source of capital for start up companies—the St. Louis Arch Angel Network.

Established in January 2005, the group provides seed and early-stage capital in a range from \$250,000 to \$2 million. To become a member,

business leaders commit to invest a minimum of \$50,000 per year in a start-up company and to act as mentors, serve on boards, provide contacts, generate deal flow, assist with team building, and help with strategies, planning and fundraising.

Membership in the group is increasing rapidly with 35 investors joining since its inception. The group expects to grow to 50 members within the next few months.

New Saint Louis University Health Sciences Center for Medical Research

\$67 Million Medical Research Building is Under Construction

www.slu.edu



Saint Louis University recently broke ground a new medical research building as part of an \$80.5 million project that also includes renovation of existing laboratory space. According to Saint Louis University President Lawrence Biondi, S.J., "The creation of a new research center for Saint Louis University has been one of my top priorities and goes to the very heart of our mission of conducting medical research that benefits our community and the world. The major investment provides another significant development for midtown St. Louis and will enhance the city's growing reputation for attracting research funding to the area." The 206,000 square-foot facility is slated to open in Spring 2007.

In other medical news, researchers at Saint Louis University are joining an international clinical trial to test a new vaccine in people at high risk of contracting HIV.

Sponsored by NIH and Merck & Co., the study is expected to last more than four years.

The research is designed to provide preliminary evidence of whether the vaccine is safe, will prevent HIV infections, and will limit the spread of the virus.



Artist rendering of the new Saint Louis University Health Science Center research building—the largest building project in the University's 187-year history.



Siteman Cancer Center Advances to NCI Comprehensive Status

Cancer Therapy Center Receives \$21 Million Grant

www.siteman.wustl.edu



The National Cancer Institute has designated the Siteman Center at Washington University School of Medicine and Barnes-Jewish Hospital

"This designation is an acknowledgement that the people of St. Louis have access to novel cancer therapies and cutting-edge research."

—Timothy J. Eberlein, M.D., director of the Siteman Cancer Center.

as a Comprehensive Cancer Center. The designation puts the facility among the highest-ranking cancer treatment and research institutions in the country.

The distinction also includes a \$21 million grant for researching improved strategies for cancer prevention, detection and treatment. The grant adds to the center's \$130 million in cancer research grants currently held by affiliated researchers and clinicians.

"This designation is an acknowledgement that the people of St. Louis have access to novel cancer therapies and cutting-edge research," says Timothy J. Eberlein, M.D., director of the Siteman Cancer Center.

After a rigorous multi-stage review process, Siteman was recognized for its strong basic science and clinical trial research programs; programs in cancer prevention, cancer control and population-based research; and a body of interactive research that bridges those areas. In addition, Siteman was awarded the Comprehensive Status for its outreach and education activities among St. Louis residents and healthcare professionals.

The 2005 update to the Battelle Report lauds the region's biotech progress.

"St. Louis has made more progress in its implementation of the plant and life sciences strategy than any region of the country, and is well on the road to becoming the leading center for plant sciences and a major center for the life sciences."

—Dr. Walter H. Plosila, vice president of Technology Partnership Practice Battelle Memorial Institute

Area Pharmacy Schools Grow to Meet Demand



SIUE Initiates School of Pharmacy and St. Louis College of Pharmacy Expands

www.siu.edu/PHARMACY/
www.stlcolp.edu

Southern Illinois University Edwardsville will open a School of Pharmacy beginning with the fall 2005 semester. The school expects to enroll 75 students its first year, with the capacity to eventually accommodate 300 students per year. The school administrators have announced they will hire 43 professors for the new program.

The St. Louis College of Pharmacy has expanded its facilities to accept more

students, doubling dorm capacity for the 139-year old college. In addition, the main academic building has been renovated and enlarged to include a Pharmaceutical Care Laboratory where students can gain practical experience in patient monitoring and counseling.

Since 2000, the need for pharmacists has grown nationwide, while at the same time, the number of pharmacists entering the workforce has declined. Both schools have designed the programs to help meet the region's growing demand for qualified pharmacists.

BioGenerator Draws New Company to St. Louis



Venganza Starts Operations In Nidus Center for Scientific Enterprise

www.biogenerator.org

Begun by plant pathologist Charles Niblett in Florida, Venganza is the BioGenerator's third and largest investment to date. The company recently moved to St. Louis to access research and testing facilities in the region.

Venganza is working to genetically modify crops to ward off fungi, such as soybean rust—a devastating disease which accounts for billions of dollars of crop losses worldwide.

The BioGenerator, which supplies early funding and support for local

biotech start-ups, is providing \$500,000 in cash and management support services to the firm. "It really shows the power of getting a critical mass together with a focus in plant biotechnology, like we have in St. Louis with research institutions, business development support and venture capital funds," says BioGenerator chief executive Pat Niveder.

In 2004, the BioGenerator invested in ISW Group, a company developing specialized skin care solutions, and in Akermin, a biofuel company based on technology licensed from Saint Louis University. The BioGenerator expects to invest in three to four additional start-up companies in 2005.



The St. Louis Regional Chamber & Growth Association partners with the City of St. Louis and the surrounding 15 counties in the bistate St. Louis region to provide a seamless, one-stop shop dedicated to the success of your project. For easy, fast access to information on the plant and life sciences in the St. Louis region, please call us directly at (314) 231-5555 or visit us on the web at www.biobelt.org and www.stlrcga.org and click on the economic development link.