From the Chairman



Despite the economic challenges of the past year, the St. Louis Arch Angels network has remained committed to its mission. From our launch in January of 2005 through the end of 2009, the Arch Angels network has invested over \$21 million in 18 start-up companies. While the number of potential investment opportunities was lower in 2009 than in prior years, the quality remains high. We believe this is a testament to the wealth of entrepreneurial talent in the St. Louis area as all but one of the companies funded through the end of 2009 is headquartered locally.

I am also excited to report that for the first time, investors, academic institutions, growth associations and incubators are working in concert. Together we are cultivating an environment that fosters innovation and supports early-stage businesses. But we can't do it alone. It will take additional support from the State of Missouri or a community-based organization to stimulate investment in start-up companies in order for them to grow and thrive. We need a proof of concept fund and a seed fund to help entrepreneurs advance their businesses. Since their success will be vital to the future of job growth in our region and across the state, we hope that this will be the year for action on this issue.

In the following pages of our 2009 Annual Report, you'll read about the successes of the companies we've invested in to date. As you'll see, they represent tremendous innovation across a range of industries. We are very proud of the role the St. Louis Arch Angels network is playing in supporting the efforts of the bright minds and entrepreneurial spirit behind these companies.

Sincerely,

Gilbert Bickel Chairman

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MISSION OF THE ST. LOUIS ARCH ANGELS

OUR MISSION IS TO PROVIDE
OPPORTUNITIES FOR OUR
MEMBERS TO OBTAIN
OUTSTANDING FINANCIAL
RETURNS BY INVESTING IN
EARLY-STAGE COMPANIES WITH
HIGH GROWTH POTENTIAL IN
THE ST. LOUIS REGION AND
HELPING THEM TO ACHIEVE
MARKET LEADERSHIP.



ABOUT ANGEL INVESTING

THE ST. LOUIS ARCH ANGELS
BENEFIT ENTREPRENEURS
THROUGH EXPOSURE TO A
LARGE SET OF POTENTIAL
INVESTORS AND A STRUCTURED
PROCESS THAT FACILITATES A
RELATIVELY QUICK INVESTMENT
DECISION. ANGEL INVESTING
REPRESENTS A SIGNIFICANTLY
LARGER AND GROWING PORTION
OF EARLY-STAGE CAPITAL
AVAILABLE TO STARTUP
COMPANIES.

ABOUT THE ST. LOUIS ARCH ANGELS

Established in January 2005, the St. Louis Arch Angels is an independent, not-for-profit 501c(6) corporation. The network was organized with the support of the St. Louis Regional Chamber and Growth Association and the Nidus Center for Scientific Enterprise. The Arch Angels are a part of the region's seed to later stage equity capital continuum and target an investment range of \$250,000 to \$1,000,000, which is generally underserved by institutional venture capital firms. Because of this, our network is an important addition to the region's capacity to finance innovation emerging from entrepreneurs, universities and technology incubators.

Our members are all accredited investors from the St. Louis region. They have significant experience in a variety of fields as entrepreneurs, CEOs, venture capitalists and business leaders who have founded, funded and built companies. We mentor and coach the entrepreneurs we invest in, serving on their boards, providing contacts and assisting them with team building, strategic planning and fundraising.

Members do not invest in a pooled fund, but rather commit to invest a minimum of \$50,000 a year directly in startup companies with other members of the network. Members always invest under the same terms and conditions. The network's activities are guided by its bylaws and rules of membership.

A network of private investors, the St. Louis Arch Angels is governed by a board of directors composed of the following officers:

Chairman: Gilbert Bickel

President: Dr. Robert J. Calcaterra

Secretary: Thomas M. Walsh

Treasurer: William C. Rusnack



FUNDING OPPORTUNITIES

Before seeking funding through the St. Louis Arch Angels, entrepreneurs are encouraged to gain a greater understanding of who we are, how we operate, what we look for in potential investments and our expectations for return on investment.

We receive many business plan submissions each month. Our funding process involves a thorough screening of each opportunity and results in approximately two companies per month being selected to present to our members for funding consideration.



INVESTMENT CRITERIA

Those seeking funds must make sure that they meet our investment criteria and that they are fully prepared with a complete business plan and presentation. We evaluate a company based on its management team, market opportunity, growth potential and other important factors, including:

Use of proceeds - Funds must be used to accelerate a company's achievement of key milestones that increase the company's value.

Competitive advantage - The company must have some proprietary features that distinguish it from potential competitors or provide barriers to entry that prevent other companies from capturing its customers with a similar offering.

Fit - One of the benefits of working with the St. Louis Arch Angels is the active coaching and contact network. There must be a fit between members of our group and the company seeking funding.

Technology - We prefer to invest in first-of-a-kind ideas, rather than incremental enhancements to common products and services. The concept behind the technology must be proven and verifiable.

Exit strategy - A clearly articulated exit strategy is very important.

ANGEL INVESTORS TYPICALLY:

- INVEST BETWEEN
 \$25,000 AND
 \$250,000 PER
 TRANSACTION INDIVIDUALLY
 AND FROM \$250,000 TO
 \$1,000,000 AS A
 GROUP.
- INVEST IN ONE TO FOUR

 TRANSACTIONS PER YEAR.
- ARE PATIENT, WITH AN AVERAGE HOLDING PERIOD OF THREE TO EIGHT YEARS.
- SEEK RETURNS IN THE

 RANGE OF 30 TIMES THEIR

 INVESTMENT DUE TO THE

 HIGH RISK OF ANGEL

 INVESTING.

LIST OF COMPANIES FUNDED

AKERMIN

Akermin's core technology is a unique methodology to protect and enable robust enzyme performance in harsh industrial environments. The company's focus is to develop an economical enzyme driven system to capture greenhouse gas in large industrial processes such as flue gas from power



plants. During 2009, the approach was experimentally confirmed in the lab. The primary goal in 2010 is to build, test and optimize bench scale prototypes to establish systems design and confirm economic advantage. Akermin will continue the development of its biofuel cell prototype with testing to establish final design for the military in 2010.

www.akermin.com Arch Angels Investment: \$2,750,000

APPISTRY

Appistry's products provide a cloud computing platform to deliver transparent scalability, application-level fault tolerance, and automated management for new and existing applications. With a broad customer list that includes FedEx, government intelligence agencies, State Street Bank, GlaxoSmithKline and others, Appistry's platform supports mission-critical applications for some of the world's leading organizations.



Appistry's 2009 revenue doubled compared to 2008. Appistry greatly enhanced its product line in 2009 with the addition of CloudIQ Manager, which allows customers to easily deploy and manage cloud applications. Appistry expects to announce by spring 2010 the release of CloudIQ Storage providing dynamically scalable, fault-tolerant and low cost file storage. www.appistry.com Arch Angels Investment: \$1,950,000

CARDIALEN, INC.

CardiaLen develops low-energy implantable atrial cardioverters for pain-free cardioversion of atrial fibrillation (AF). It will commercialize these devices to address unmet needs in AF therapy, improve outcomes



and reduce stroke and heart failure risk. Low-energy, pain-free cardioversion offers significant benefits in ventricular fibrillation (VF) also but, given the strong position of high-voltage implantable VF devices, it will develop such VF applications in alliances only. Pain-free atrial cardioverters will add a new segment to the \$12B global market for implantable cardiac rhythm devices. They will add a new option for drug refractory and persistent AF patients unsuited to catheter ablation. Physicians and insurers will enjoy shorter procedures, favorable reimbursement and lower costs.

www.cardialen.com

Arch Angels Investment: \$175,000

"THE ST. LOUIS ARCH ANGELS PLAY A VITAL ROLE IN HELPING TO PROVIDE THE INITIAL CAPITAL TO JUMP START FARLY-STAGE BUSINESSES HERE IN THE ST. LOUIS REGION. SEVERAL CET TENANT COMPANIES HAVE BEEN THE BENEFICIARIES OF FUNDING FROM THE ARCH ANGELS, SO WE[']VE SEEN FIRST HAND THE TREMENDOUS IMPACT THAT THE ARCH ANGELS NETWORK HAS HAD."

> MARCIA MELLITZ PRESIDENT & CEO CENTER FOR EMERGING TECHNOLOGIES (CET)



CLEARENT

Clearent is using state-of-the-art technology to revolutionize the payments processing industry. Using proprietary software infrastructure, Clearent is able to deliver a highly reliable, highly scalable system built on commodity hardware that results in lower capital, development and operations cost. Clearent has 29 employees and did \$8 million in 2009 revenue, representing year-over-year growth in excess of 115 percent. Clearent sells its services through banks and independent sales organizations. www.clearent.com



Arch Angels Investment: \$1,000,000

COGNO

Cogno is a multimedia children's brand that inspires kids ages 7-13 to think critically and imaginatively in science and math. Cogno's brand position has been described as "Star Wars meets the Magic School Bus." Bill Nye The Science Guy® wrote a foreword for the Cogno novel series, and the business was featured in the Wall Street Journal. After winning 25 national product awards, the company is pursuing IP licensing in television, books and virtual world licensing.



The company continues to grow its internationally syndicated puzzlers for classrooms, now reaching over 450,000 children weekly.

www.cogno.com

Arch Angel Investment: \$240,000

DIVERGENCE, INC.

Divergence is an agricultural biotechnology company focusing on discovery and early-stage product development. Its emphasis has been on parasitic infections. In the past year, Divergence has had its third year of successful field trials with its lead nematicidal chemistry and also had very positive results in trials of its transgenic nematode-resistant technology. Divergence also validated its Harvest® platform for the discovery of novel agrichemistry with the discovery of new classes of fungicidal chemistry.



www.divergence.com

Arch Angels Investment: \$127,500

EDUNN BIOTECHNOLOGY, INC.

Edunn Biotechnology, Inc. is developing unique oligonucleotide drugs to treat central nervous system diseases. Edunn's OL-1 drug is designed to cure Alzheimer's disease and to treat Down syndrome. It is highly selective and has shown significant activity and safety in multiple preclinical models. The Company is waiting to hear the results of a multi-million dollar grant submission to NIH under the RAID Program. If Edunn receives the grant it would be within \$1M of starting its Alzheimer's Clinical Trial. www.edunn.com



Arch Angels Investment: \$405,000

ENDOSTIM

Endostim's mission is to develop and commercialize a new treatment for Gastroesophageal Reflux Disease, Urinary Urge Incontinence and other sphincter related disorders. The company's proprietary solution is the first to offer restoration of physiological sphincter function through neurostimulation, using a miniaturized,



wireless microstimulator placed in the sphincter to address these disorders. In contrast to current approaches, Endostim's solution could be performed as an outpatient procedure and promises to address these diseases less invasively and at lower cost. To date, Endostim has validated its technology and clinical approach through a successful first-in-man acute clinical study and intends to proceed with sub-acute and chronic human trials to prepare for regulatory approval.

Arch Angels Investment: \$60,000

GLOBAL VELOCITY

Traditional software-based solutions can't provide the depth, speed, scale or application-scope needed to meet the escalating cybersecurity threat. Global Velocity has therefore developed the world's first wire-speed networking



platform that supports multiple cybersecurity solutions. The company's first commercial product, GV-2010, which launched in 2009, offers three integrated cybersecurity applications - Data Loss Prevention, Application Control and Pattern Recognition - in one extremely high-speed device. The GV-2010 is a paradigm shift for cybersecurity. It also reduces cost and risk. This past year Global Velocity also signed its first commercial and federal resellers and has had several patents issued. Market ramp up is now underway.

www.globalvelocity.com

Arch Angels Investment: \$511,200

LORI COULTER

Lori Coulter developed the TrueMeasure line of apparel. Rooted in technology and fashion, Coulter's line features wearable swimwear that flatters the figure, fits and boosts self-esteem. Coulter utilizes the TrueMeasure fit system, a process that employs light and camera-based technology; the [TC]2 3D Body Scanner, a proprietary ordering and fulfillment system, and



automated CAD technology. The scanner measures the entire human body in less than 12 seconds and produces a true-to-scale 3D body model within a minute that is more accurate and consistent than measurements taken by a trained professional. The technology-based approach to fashion is an innovation in the retail industry with automated customization and rapid turnaround times.

Lori Coulter Made-to-Order Swimwear launched at select Macy's locations in 2007 and launched a custom wholesale business targeting resorts, pageants and branded products in 2008.

www.loricoulter.com

Arch Angels Investment: \$360,000

MEDIA CONVERGENCE GROUP, INC. (NEWSY.COM)

Media Convergence Group, Inc. is developing multiple businesses and revenue streams generated from a converged, digital newsroom that monitors, synthesizes and presents world news coverage. Although access to news sources is abundant, most consumers consider the news media to be biased. The consumer lacks a convenient and coherent way to comprehend, synthesize and gain understanding.



In 2009 the company launched a successful mobile app for the iPhone, Intel Netbook and Android platforms as well as reconfigured its website to improve user engagement. The company expects to complete a \$2M round of funding in 2010, secure its first paid test for a content licensing agreement, and launch an iPad app.

www.newsy.com

Arch Angels Investment amount: \$175,000

SEQUOIA SCIENCES

Sequoia Sciences is a pharmaceutical company commercializing new medicines to treat bacterial infections. Programs consist of small molecules targeting the lung infections of cystic fibrosis patients and MRSA infections, and vaccines for the treatment of recurrent urinary tract infections. Sequoia also has an unparalleled collection of structurally diverse natural product compounds isolated from plants collected by the Missouri Botanical Garden.



In 2009, Sequoia conducted a very successful large animal trial with its UTI compound and completed most of the pre-IND work to start clinical trials on its UTI compound in late 2010. Sequoia also received a NIH cancer grant and found a number of novel and exciting cancer compounds. It anticipates receiving a multi-million dollar NCI grant in 2010.

www.sequoiasciences.com

Arch Angel Investment: \$6,360,000



AS OF DECEMBER 31, 2009, THE ST. LOUIS ARCH ANGELS NETWORK HAS:

- 42 MEMBERS
- RECEIVED MORE THAN 500 APPLICATIONS
- INVESTED OVER \$21 MILLION

SOMARK INNOVATIONS, INC.

SOMARK's goal is to improve life sciences research processes with an advanced lab-animal identification system. A more reliable and more humane ID system can provide higher quality preclinical data that can translate into safer treatments and a shorter development period. SOMARK wants to help researchers create safer, cheaper and more effective treatments.



In 2009, SOMARK raised the company's first round of institutional capital and achieved a successful proof-of-concept demonstration. In 2010, the company is looking to start a successful customer pilot, secure purchase orders, commence manufacturing and realize the company's first revenues.

www.somarkinnovations.com

Arch Angels Investment: \$554,000

TERAVISTA SYSTEMS

TeraVista Systems provides corporations with a unique toolset of technologies that streamline their environmental and energy practices, thereby saving time and money. Its patent-pending CarbonTrax software is designed to automate the verification, validation and aggregation of carbon credits for all aggregation companies and financial



institutions. Only 10 percent of current credits are being spot-validated, but CarbonTrax solves this problem through remote sensing technologies that allow for 90 percent validation. www.tera-vista.com

Arch Angels Investment: \$50,000

U.S. SPINE, INC.

US Spine® had a very productive 2009, launching four new product lines including the PreferenceTM 2 Complex Spine System, the PhantomTM Plus Interbody System, the Facet GunTM Max and the JavelinTM MIS Locking Facet System. Both the Preference™ 2 Complex Spine System and PhantomTM Plus lines strengthen the company's core



product portfolio, while the Facet GunTM Max and JavelinTM systems cement its place as the leader in Facet Technologies.

Thanks to product development success in 2009, US Spine® has strong momentum and is poised to have an outstanding year with projected revenues in the \$20 to \$25 million range for fiscal 2010.

www.us-spine.com

Arch Angels Investment: \$5,900,000

UPDATE ON OTHER COMPANIES IN WHICH THE ARCH ANGELS NETWORK HAS INVESTED:

Gridlogix was acquired by Johnson Controls in 2009 GameRail ceased operations in 2008 Cervimark ceased operations in 2009



TO LEARN MORE ABOUT THE ST. LOUIS ARCH ANGELS:

- VISIT US ONLINE AT:
 STLOUISARCHANGELS.COM
- EMAIL:

 CWALSH@STLRCGA.ORG
- CALL: 314-444-1151

APPLICATION PROCESS

We are eager to hear from companies that are seeking funding to help take them to the next level. Additional details about the Arch Angels' investment criteria and funding process are available online at www.stlouisarchangels.com.

BECOMING A MEMBER

Membership in the St. Louis Arch Angels is extended to individuals who share our vision and will actively contribute to our process. Our unique network of private investors includes many entrepreneurs who have founded and built their own companies and understand the unique challenges faced by entrepreneurs. Our goal is to grow the membership with individuals who are willing to invest both their dollars and their expertise.

If you are interested in learning more about joining the Arch Angels, please call Christine Walsh at 314-444-1151.

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