

2017

ANNUAL REPORT



ENGAGING ACCREDITED
INVESTORS IN ST. LOUIS'
STARTUP **ECOSYSTEM**

FROM THE CHAIRMAN

I am pleased to report that 2017 was another stellar year for The St. Louis Arch Angels. During 2017, we continued our Mission to fund and support high potential startups drawn from the St. Louis Startup Ecosystem. As of the close of 2017 the Arch Angels' cumulative investment in startups comes close to \$80 million invested in 91 entities.



Success does not exist in a vacuum. Continuing this trend requires a strong local startup ecosystem that attracts Accredited Investors in greater numbers, creating the source of capital necessary to attract high potential startup candidates.

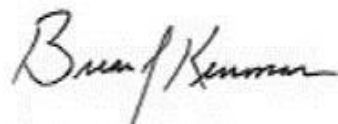
During 2017, the Arch Angels identified and pre-screened over 130 new opportunities. From this pool, 30 were selected to participate in our formal screening process. Of those, 20 were asked to present to our full membership. Seven of those companies received funding along with another 19 of our existing investments who asked us for additional capital to support their strong growth trajectories.

We also recruited 15 new members in 2017, including a new Corporate Partner, Commerce Bank. We gain not only a fresh source of investible capital from recruitment efforts but also members with phenomenal backgrounds and experiences. We make it a policy to provide input and mentoring to the deals we evaluate as well as invest in, and the quality of our mentoring is directly proportional to the quality of our membership. Our Corporate Partners include law firms, CPA firms, an investment and benefits advisor and a commercial bank. These partners have helped position the Arch Angels to provide the ongoing critical support necessary to help our investments to a successful exit.

Speaking of exits: We were fortunate to find many of our members participating in the Confluence exit this past year. We look forward to many more exits in what we hope is the near term.

All of this was made possible because of the hard work and dedication of our volunteer board of directors and our very talented staff. I want to express my gratitude for the long hours and hard work put in by Jim Von der Heydt, Tom Niermann and Greg Trapp as board members who, after a two-year term, have decided to take a step back allowing for the election of three new board members: Marie Carlie, Chris Dalton and Brian Estes. Our organization undertook several initiatives over the past two years that have allowed us to continue our very successful operation. These board members, along with Jay Baumohl, who will stay on as Treasurer, contributed not only a great deal of their time but most importantly their expertise. We are fortunate to have such a wonderful pool of talent. I am confident our reconstituted board will continue this fine tradition of success for the St. Louis Arch Angels.

I am full of excitement as to what lies ahead for our organization and I look forward to the celebration of many more accomplishments during 2018.

A handwritten signature in black ink that reads "Brian Kinman". The signature is written in a cursive, flowing style.

Brian Kinman
Chairman and CEO

MISSION STATEMENT

During 2016, we evolved our **Mission Statement** in a manner that is consistent with the growing and expanding St. Louis Startup Ecosystem and our role in that Ecosystem.

Our Mission Statement follows:

“We are a select group of accredited investors with diverse expertise and experience seeking high potential startup ventures drawn from the St. Louis Startup Ecosystem to fund and support, resulting in success for our funded companies and outsized returns for our members and corporate partners.”

This Mission Statement reminds our board every day of the complexity of our charge and drives our operating decision making. We recognize our position in the Ecosystem and strive to ensure we manage up to all of our stakeholders’ expectations.

2017 OVERVIEW

St. Louis Arch Angels By the Numbers

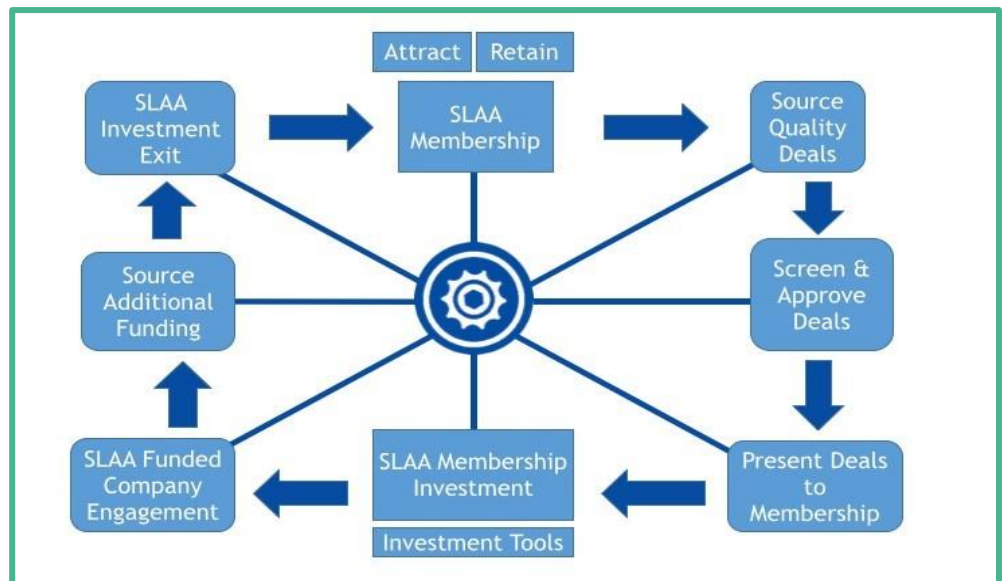
- Over **130** companies pre-screened
- **30** companies presented to our screening committee
- **20** companies presented to our full membership
- **7** companies received Arch Angel investment for the first time
- **19** companies received follow-on Arch Angel investment
- **15** new members
- **1** new corporate member

OUR OPERATING PROCESSES

Our board is focused on bringing our members the best possible Angel investing experience. We refined our operating process in 2016 (see the “Fly Wheel” below) and have spent 2017 improving our execution of that process. We believe that our role in the St. Louis Startup Ecosystem should drive our cooperation with other stakeholders of the Ecosystem and ensure that we also provide a great experience to the founders who present their deals to our members. We may not invest in all the deals presented, but we work hard to provide meaningful feedback and guidance to all the founders who apply for funding.

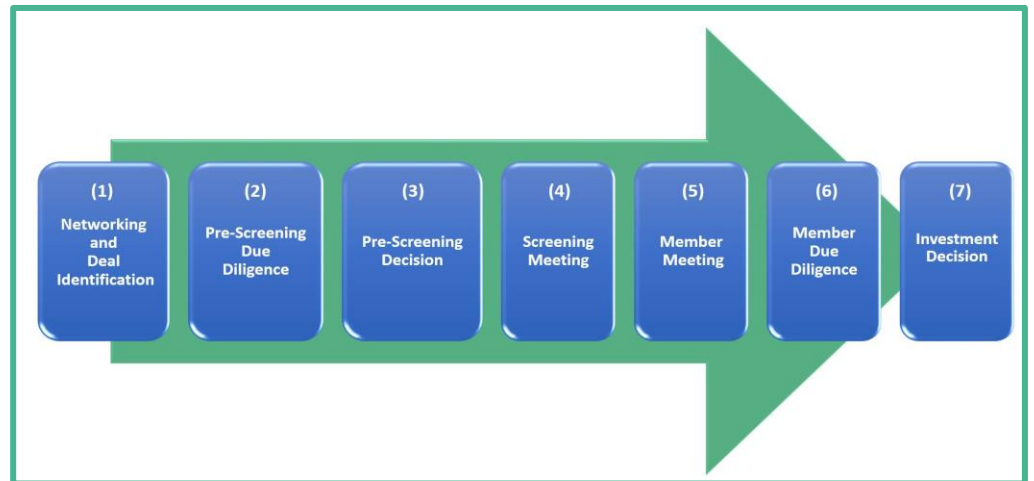
The St. Louis Arch Angel Investing Fly Wheel

To graphically portray this process, the Board created the **St. Louis Arch Angel Investing Fly Wheel**, which shows each step in our strategy to move deals toward increased valuations and a faster exit, focusing on **deal quality, membership involvement with the process and with the company**, and acknowledging the ability of the Angels to bring in additional resources **to support our investments and the St. Louis Startup Ecosystem**.



To go a little deeper, we have developed the following chart to show our process from learning of a company's existence through the company receiving Angel investment.

St. Louis Arch Angel Investment Process



The key elements of each of the seven steps are described below:

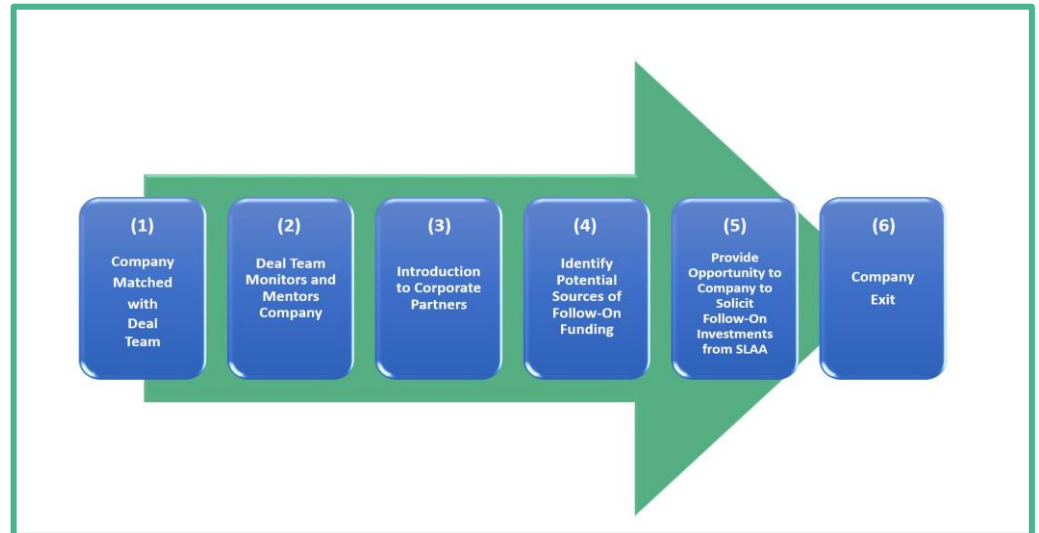
Step

Description

- 1) Networking / Deal Identification:** Members of our board routinely network with all the accelerator funds in the Ecosystem as well as with other key influencers to identify potential investible deals.
- 2) Pre-Screening Due Diligence:** Founders are invited to apply to the Arch Angels through our proprietary link on Gust and our Interns begin to collect information and data on the startups based on predetermined guidelines.
- 3) Pre-Screening Decision:** Members of our board meet and agree whether or not to move forward with the deal evaluation based on the preliminary data accumulated in step 2.
- 4) Screening:** The screening committee meets with the founders to hear their pitch and to challenge the founders on their business plans, deal terms and other matters leading to a go/no go decision for presentation to our members at the month end member meeting.
- 5) Member Meeting:** Members gather on the last Wednesday of each month to hear the selected pitches, ask questions of the founders and to discuss the merits of each potential deal.
- 6) Member Due Diligence:** Members interested in investing in a particular deal form a deal team, appoint a deal lead and begin due diligence.
- 7) Investment:** When the deal team decides to invest, the investment tools are used to create unique LLCs to bundle the investments of each individual member. This bundling has many times allowed for a stronger negotiation base including the ability to receive board participation or observation rights. Members are also able to invest as individuals.

Following investment, the Arch Angels continue to engage with the company as we help move it to a successful exit. The chart below outlines the post investment activities:

St. Louis Arch Angel Post Investment Process (Funded Company Engagement)



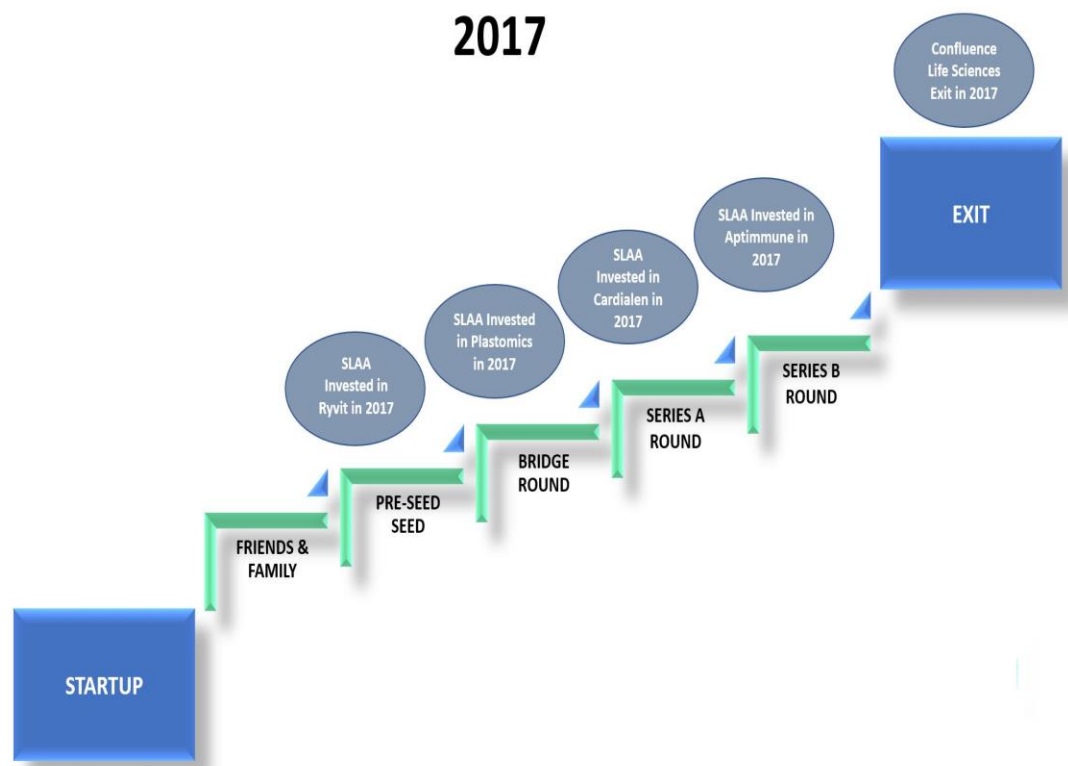
The Funded Company engagement phase involves the selection of key interface points between the company and the Arch Angels deal team. This is followed by developing the standards for ongoing monitoring and mentoring of the company by the deal team.

During this phase, we also introduce one or more of our Corporate Partners who may be able to help the company as it moves from startup to a real operating entity. Additionally, the Arch Angels stay involved in helping the company determine when additional funding may be necessary as well as helping to identify potential sources of follow-on funding. The Arch Angels provides our existing investments the opportunity to return to solicit follow-on funding from our entire membership at the appropriate time. The Chart on the next page provides a demonstration of the types of funding we participated in with our investments during 2017.

These and other activities demonstrate our commitment to our startup investments as we help them move toward an exit that benefits us all.

INVESTING IN VARIOUS FUNDING STAGES

The St. Louis Arch Angels participate in various stages of funding including Pre-Seed, Seed, Bridge, and Series A rounds. The graphic below lists examples of investments made in 2017 to companies during these various rounds of funding.



ABOUT THE ST. LOUIS ARCH ANGELS

A NETWORK OF INVESTORS

Established in January 2005, the St. Louis Arch Angels is an independent, not-for-profit 501c(6) corporation. The group was established to help individual Angel investors work together to mutual benefit, sharing ideas, insights into the market, and expertise.

Since inception, the Arch Angels have been vital to the success of the St. Louis Startup Ecosystem by providing seed and early investment to startups in the range of \$50,000 to \$1,000,000, an investment need that is often underserved by institutional venture capital firms. Because of this, our network is an important element 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 as individuals with other members of our network. We recommend our members consider a minimum annual investment of \$50,000. Members always invest under the same terms and conditions. The network's activities are guided by its bylaws and rules of membership.

LEADERSHIP

The St. Louis Arch Angels is governed by a Board of Directors composed of the following officers:

Chairman: Brian Kinman

Chairman Emeritus: Gil Bickel

Vice Chairman: Chris Dalton

Treasurer: Jay Baumohl

Secretary: Marlie Carlie

Member at Large: Brian Estes

BECOMING A MEMBER

Membership in the St. Louis Arch Angels is extended to accredited investors 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 their expertise and time as well as their dollars.

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



COMPANY EXITS IN 2017

During the summer of 2017, Confluence Life Sciences, a pharmaceutical venture where members first invested in 2012, announced a sale to Aclaris Therapeutics for upfront consideration of \$25 million with a maximum deal value of up to \$100 million based on future achievement of milestones.



2017 NEW INVESTMENTS

The companies outlined below represent companies who have presented to the Arch Angels during a membership meeting and who have received investment directly from St. Louis Arch Angels, either as individuals, LLCs, or through partner accelerators.

Through December 2017, members of the group have made initial investments in the following companies:

CARDIAFORM has developed technology able to map and ablate cardiac arrhythmias using a single catheter. The ability to precisely and rapidly map arrhythmias will allow better patient outcomes as well as reduced procedure times. During its seed round, CardiaForm plans to provide proof-of-concert with a prototype device, select initial product for development, and build intellectual property estate.

2017 Investment: \$15,000
Initial Investment Year: 2017



LEAN MEDIA is a digital advertising agency, working within the agricultural space. The company uses data on the location of farms to direct advertising to devices likely owned by farmers. It is the first online advertising platform dedicated to agribusiness. Their customers include John Deere, Monsanto, and Beck's.

www.leanmedia.com

2017 Investment: \$150,000
Initial Investment Year: 2017



PLASTOMICS was founded in 2016 and is a “biotechnology startup using chloroplast genetic engineering to develop the next generation of high-performing crops.” Arch Angels members plan to invest more capital in early 2018, with initial investment taking place through Yield Lab. Plastomics plans to disrupt the Genetically Modified crop industry by offering a new way to fight herbicide resistant weeds and insects, and provide higher yields

www.plastomics.com

2017 Investment: \$100,000
Initial Investment Year: 2017



ROVERMED BIOSCIENCES designed a precision drug delivery technology that brings medicine directly to the cell that it is trying to reach. RoverMed says, “When drugs can’t reach specific disease cells or are degraded in delivery, they can’t treat the diseases effectively.” Their product actually targets the diseased cell.

www.rovermed.com

2017 Investment: \$111,000
Initial Investment Year: 2017



RYVIT is a SAAS company working within the construction industry to integrate various solutions that already exist within the industry. For example, the company has created integrators between accounting platforms and platforms that track where tools are on various construction sites, allowing for easier, more accurate billing of customers. In Q3 of 2017, Ryvit launched a portal that allows partner to have more of a self-service functionality within the platform.

www.ryvit.com



2017 Investment: \$150,000

Initial Investment Year: 2017

SOOZIE'S DOOZIES brought the St. Louis Arch Angels cookies during their first pitch – and not as a gimmick. This company produces several varieties of refrigerated all-natural cookie dough that the consumer bakes at home. They have also created refrigerated cookie dough bars that do not need to be baked. One of their biggest successes this year was their selection by Kroger to sell to their stores.

www.sooziesdoozies.com



2017 Investment: \$372,120

Initial Investment Year: 2017

STEADYMD is personalized primary care over a mobile platform. Through SteadyMD, doctors serve a limited number of patients, who are able to contact their doctor via text, phone, and video chat as needed. Each doctor is licensed in the state of any patient he or she takes on, and able to make referrals as necessary.

www.steadymd.com

2017 Investment: \$100,000
Initial Investment Year: 2017

SteadyMD

2017 FOLLOW-ON INVESTMENTS

Members of the Arch Angels have provided follow-on funding to the following companies:

ACERA SURGICAL is a bioscience company “commercializing a portfolio of fully synthetic electrospun scaffolds for regenerative medical applications.” During 2017, they initiated their first clinical use with 50+ patients and the IRB-approved clinical study. They had a recent FDA clearance of Restrata, one of their products, and contracted with two new distributors.

www.acera-surgical.com



2017 Investment: \$150,000
Initial Investment Year: 2013

ADARZA BIOSYSTEMS is a medical diagnostics company that created a platform that can “identify proteins and genetic markers in medical samples such as blood... and can help with cancer diagnostics and allergy testing, drug and vaccine development, (and) immunology and infectious diseases.” According to the company, they are currently focused on reigning in costs, adding key personnel, and focusing on commercialization strategy for both hardware, software, and consumable tests.

www.adarzabio.com



2017 Investment: \$615,001
Initial Investment Year: 2013

APTIMMUNE BIOLOGICS specializes in the creation of swine mucosal vaccines, focusing solely on the prevention of two major diseases – Porcine Reproductive and Respiratory Syndrome virus (PRRSV) and influenza. In fact, Aptimmune’s mucosal vaccine for PRRSV is the first vaccine for swine administered via nasal spray. St. Louis Arch Angels members have invested in three rounds for this company in the last year: Series A, a bridge round, and the Series B round.

www.aptimune.com

2017 Investment: \$2,210,019
Initial Investment Year: 2016



ARVEGENIX is leading the development of Field Pennycress. This crop can be grown between the corn-soy rotation, which provides growers with an additional revenue crop. Pennycress applications include biodiesel and aviation fuel and animal feed. During the 2017-2018 growing season, the company has yield and pre-commercial trials at 6 sites, and plans for a commercial launch in 2020.

www.arvegenix.com

2017 Investment: \$1,069,997
Initial Investment Year: 2015

ARVEGENIX

BACTERIOSCAN INC. uses the slogan “answers before antibiotics” with their product that rapidly diagnoses Urinary Tract Infections (UTIs). BacterioScan claims that doctors order 100 million urine cultures every year, making it one of the most frequent orders in the modern lab. Current tests take days to return, but BacterioScan 216 Dx UTI system can quickly detect and measure bacterial growth in patient urine in just a few hours. BacterioScan filed for 510(k) approval of the 216 Dx on August 8, 2017 and expect approval in the first quarter of 2018.



2017 Investment: \$150,000
Initial Investment Year: 2013

BENSON HILL BIOSYSTEMS INC. works to “advance agriculture through plant biology, big data analytics, and cloud computing.” Their product, CropOS, uses these tools to increase productivity, improve resource utilization, and enhance nutrition. During 2017, the company says it has made significant progress in field trials of lead candidates, published patents, and reaches targets in cloud biology and genome editing.

www.bensonhillbio.com

2017 Investment: \$649,999
Initial Investment Year: 2013



CARDIALEN invented an implantable device that addresses atrial fibrillation (AF), a treatment that “stops symptoms at the onset of AF, keep people out of the healthcare system, and greatly reduce AF’s significant financial impact.” The company had three abstracts published at Heart Rhythm Society in May 2017.

www.cardialen.com



2017 Investment: \$978,500
Initial Investment Year: 2009

ELIRA, INC. is developing a wearable device that enables patients to lose weight. The device is placed on the skin of the wearer’s stomach and triggers a reaction that makes the wearer feel satiated. It is compatible with cell phones and allows the wearer to monitor many health indicators. In 2017, Elira raised \$1.9 million from investors and hired an industry-experienced CEO.



2017 Investment: \$75,000
Initial Investment Year: 2015

ENDOSTIM is a medical device company that is developing and commercializing a treatment for gastroesophageal reflux disease by addressing the underlying cause of reflux. The procedure is “designed to preserve the natural anatomy in order to reduce or avoid typical gastrointestinal side effects of traditional anti-reflux surgery.”

www.endostim.com

2017 Investment: \$18,000
Initial Investment Year: 2009



EUCLISES PHARMACEUTICALS INC. is expanding who will respond to Immuno-Oncology therapies through their product ECP-1014. This product, in animal testing, has shown that they can convert non-responsive tumors into responsive tumors. During the past year, Euclises focused on completing the Investigational New Drug (IND) application as well as expanding their animal studies.

www.euclises.com

2017 Investment: \$455,000
Initial Investment Year: 2012



FINLOCKER is a “consumer-enabled financial technology platform that gives lenders access to critical borrower information via a trusted 3rd party that can be used to streamline the lending processes for mortgages and other financial products.” During 2017, the company announced a connector relationship with Equifax and has integrated Equifax into its services.

www.finlocker.com

2017 Investment: \$1,070,000
Initial Investment Year: 2016



HIJRO, formerly Fluent, uses blockchain technology to integrate between ERP and IT platforms. Using blockchain, the company claims it can “improve visibility of transactions, documents, and asset ownership.”

www.hijro.com

2017 Investment: \$100,000
Initial Investment Year: 2016



INDALO THERAPEUTICS is a biotechnology company focused on creating therapies for fibrotic disease. In 2017, the company continued to advance its lead program for solid organ fibrosis toward CTA-enabling studies.

www.indalotherapeutics.com

2017 Investment: \$200,000
Initial Investment Year: 2015



KOGENT SURGICAL is a startup out of St. Louis which creates and sells titanium surgical instruments.

www.kogentsurgical.com

2017 Investment: \$25,000
Initial Investment Year: 2013



MOLECULERA has developed tests to identify “whether an individual’s neurologic and/or psychiatric symptoms could be caused by an autoimmune dysfunction.” Many behavioral issues, including anxiety and attention deficit hyperactivity disorder, have been found to be caused by treatable autoimmune conditions.

www.moleculeralabs.com

2017 Investment: \$120,000
Initial Investment Year: 2013



NEWLEAF SYMBIOTICS develops products that can deliver beneficial bacteria to plants, with the goal of boosting crop yield. The company has shown that “plants whose seeds are treated... are healthier and show better early growth and more robust root architecture.”

www.newleafsym.com

2017 Investment: \$45,000
Initial Investment Year: 2012



NEXMATIX developed a pneumatic valve with sensors that monitor factory lines, checking for leaks and any malfunctions in the line. Through this valve, they can save companies money and reduce waste.

www.nexmatix.com

2017 Investment: \$125,000
Initial Investment Year: 2015



S4 was formed in 2010 in Argentina, and plays in the AG-Tech space. Their goal is to develop data analytics that lead to better decision making, increased yield, and managed risk. The S4 business model is to sell its data to financial service providers, ag suppliers, large food suppliers, and other agribusinesses.

www.s4agtech.com

2017 Investment: \$500,000
Initial Investment Year: 2015



SEQUOIA SCIENCES is a pharmaceutical company that targets bacterial infections and cancers. In July of 2017, the company announced it has received fast track status from the FDA for their Urinary Tract Infection (UTI) vaccine.

www.sequiasciences.com

2017 Investment: \$175,000
Initial Investment Year: 2006



OTHER INVESTMENTS

St. Louis Arch Angels members also actively invest in funds and accelerators that are integral to the St. Louis startup ecosystem. These entities also act as partners by recommending deals that may be ready for direct Angel investment. Through this team effort, more deals are able to receive funding and mentorship. In 2017, the St. Louis Arch Angels invested a total of \$1,343,750.



FUNDED COMPANIES TO DECEMBER 2017

FUNDED COMPANIES (91)

ACTIVE (68)

- Acera Surgical
- Adarza Biosystems
- Agribody Technologies
- Agvoice
- Aisle411
- Apse
- Aptimmune
- Arvegenix
- Bacterioscan
- Benson Hill Biosystems
- Boditrak Sports
- Bonfyre
- Cardiaform
- Cardialen
- CellAride
- Cogno
- Coolfire Studios
- Elemental Enzymes
- Elira, Inc.
- Endostim
- Epharmix
- Epigenetx
- Euclises Pharmaceuticals
- Finlocker
- Focalcast
- Galera
- Generico
- Graematter
- Greetabl
- Gremlin
- Hatchbuck
- Hijro (Fluent)
- Immunophotonics
- Indalo (Antegrin) Therapeutics
- Island Radar Company
- IV Diagnostics
- Katalyst Surgical
- Kingdom Scene Endeavors
- Kogent Surgical
- Kypha
- Lean Media
- Lockerdome
- Lori Coulter
- MaxOne (Programax)
- Mobius Therapeutics
- Moleculera Labs
- Nanopore Diagnostics
- Nawgan
- Neuroolutions
- New Leaf Symbiotics (Trophomax)
- Nexmatix (Aerovalve)
- Pixel Press Technology
- Plastomics
- Pulse Therapeutics
- Radialogica
- Rovermed
- Ryvit
- S4
- Sequoia Sciences
- SixPlus (BookaLokal)
- Soozie's Doozies
- SmashToast
- SteadyMD
- Summersalt
- TrackBill
- Traxssson
- Tunespeak
- Veniti

OTHER INVESTMENTS (6)

- Capital Innovators
- Cultivation Capital Fin Tech Fund I
- Cultivation Capital Life Sciences Fund I & II
- Cultivation Capital Tech Fund
- SixThirty
- The Yield Lab

CEASED OPERATIONS (8)

- Akermis (2016)
- Appistry (2017)
- Cervimark (2009)
- Edunn Biotechnology (2013)
- Gamerrail (2008)
- Global Velocity (2017)
- LangLearner (2013)
- TeraVista Systems (2011)

EXITS (9)

FULL (7)

- Confluence Life Sciences - Acquired by Aclaris Therapeutics Inc. (2017)
- Divergence - Acquired by Monsanto (2011)
- Gridlogix - Acquired by Johnson Controls (2009)
- Newsy - Acquired by E.W. Scripps (2013)
- Somark - Acquired by Two Oceans Pty (2013)
- SynerZ - Acquired by undisclosed party (2016)
- U.S. Spine - Acquired by Ametica Corporation (2010)

PARTIAL (2)

- Clearent (2015)
- GainSight (2013)



ST. LOUIS ARCH ANGELS
ONE METROPOLITAN SQUARE
SUITE 1300

ST. LOUIS, MO 63102

WWW.STLOUISARCHANGELS.COM