



2020

St. Louis Arch Angels Annual Report



From the Chairman



Dear Fellow Arch Angels,

I am pleased to present to you the St. Louis Arch Angels' 2020 Annual Report. The challenges of the past twelve months have been unprecedented in our modern history. When I wrote to you at this time last year to present our 2019 report, we had just begun to understand the impact of the COVID 19 Pandemic. At that writing, the devastation and loss of life was just beginning to be understood and yet we had no idea how challenging the following twelve months would be. We have all been impacted in one way or the other and for the most part, we have found a way to soldier on. While the pandemic impacted us greatly as individuals from a health perspective, it also created unprecedented challenges for our City, State, Nation, and local Startup Ecosystem. By working through those challenges together, we as citizens and participants in our local Startup Ecosystem have found a way through the tough times and we can now see the light at the end of this long dark tunnel.

We have prepared a report for you that has been redesigned to provide a snapshot of the key issues that impact on and report out our key success factors. I hope you will enjoy this new format. As you read the report you will see that we highlight the six new members who joined with us to invest in this Startup Ecosystem as well as key statistics regarding our investments. Last year we invested \$8.7 million in 17 different entities. Thirteen existing portfolio companies

returned to receive \$7.7 million in follow-on investment and four first time companies received just under \$1 million in new capital from our membership.

While the challenges of last year clearly impacted our portfolio companies, we did see one exit, Canopy, and now have renewed confidence that more are on the horizon. The challenges of the past year did impact the ongoing operations of all our portfolio companies to some degree but only three ceased operations during the period.

But our biggest news.... WE CROSSED THE \$100 MILLION MARK in cumulative total investment. Over the past sixteen years we invested over \$101 Million in 111 different entities. As you can see from this annual report, 86 of those entities still offer us the opportunity for exciting future exits while 12 of them have already exited.

We are already off to a great start for 2021. We will be offering our hybrid meeting approach where those members who want to meet in a safe socially distanced manner can do so while other members join us on Zoom. We will continue to invest in the St. Louis Startup Ecosystem as we work together to invest for success while working through the final stages of this challenging environment. I also want to acknowledge Jay Baumohl. Due to business requirements, Jay has decided to step back from the Arch Angels and his role as our Treasurer and Board Member. Jay's contributions were many and important. We thank him for his many very valuable contributions and wish him well in his future endeavors.

I want to offer my heartfelt thanks to each of you for your commitment and strength in these difficult times. The Arch Angels are strong and continue to be an important element of the St. Louis Startup Ecosystem.

Please accept my best regards and wishes for you and your families,

A handwritten signature in black ink, appearing to read "Brian J. Kinman". The signature is written in a cursive style with a long, sweeping underline that extends to the left.

Brian J. Kinman, Chairman



St. Louis Arch Angels - 2020 Annual Report

WELCOME OUR NEWEST (2020) MEMBERS

JENN EHLEN ADYTIA EACHEMPATI
 BRIAN FLUCHEL FARZIN FOTOUHI
 ED MCDANIEL JOHN GALANIS

LATEST EXITS

CANOPY

2020 FUNDING

RETURNING DEALS:

Adarza Biosystems	\$ 310,000
APT IMMUNE	\$ 1,195,000
COVERCRESS	\$ 350,000
Benson Hill	\$ 75,000
Cover Cress (Arvegenix)	\$ 250,000
Cultivation Capital	\$ 3,325,000
Elira Therapeutics	\$ 22,000
IDEATE Medical	\$ 535,000
Immunophotonics	\$ 1,000
Moleculera	\$ 70,000
Programatix	\$ 25,000

RETURNING DEALS, continued:

SentiAR	\$ 500,000
Sequoia Sciences	\$ 72,000
Total	\$7,730,000

FIRST TIME DEALS:

ADVOCADO	\$ 500,000
Amplified Sciences	\$ 25,000
Autonomous Pivot	\$ 50,000
IMPETUS	\$ 365,000
Total	\$ 940,000

PORTFOLIO NEWS

APT IMMUNE- SIGNED ITS FIRST TERM SHEET FOR DEVELOPMENT AND DISTRIBUTION OF NOVEL ASF VACCINE

COVERCRESS IS FINALIZING ITS LAST RAISE BEFORE COMMERCIAL PLANTING IN FALL OF '21

ADARZA PIVOTED DURING PANDEMIC TO MODIFY ITS TESTING EQUIPMENT FOR COVID VACCINE RESEARCH

CUMULATIVE ARCH ANGEL FUNDINGS

NUMBER OF DEALS 111

VALUE OF FUNDINGS \$101,000,000

New Deals

Advocado earned a sizable investment from the St. Louis Arch Angels in 2020. Advocado is a St. Louis based company led by a strong group of five co-founders. On its website Advocado describes itself as a 'real-time cross-media optimization & audience platform that makes advertising perform better by using signals in the physical world (like tv ads or in-program content) to trigger real-time actions across search, social and shopping platforms'. The company operates in a relatively new market without significant competition. The company uses a SaaS model to engage with enterprise brands and their agencies to improve the success rate of advertising campaigns. Advocado has seen a 98% increase in click through rates on its campaigns. The company has also seen a significant increase in sales since the beginning of 2019. Advocado is led by CEO Brian Handrigan.

Website: <https://www.myadvocado.com/>

Amplified Sciences is a life science diagnostic company 'focused on accurately detecting and pre-empting the risks of debilitating diseases'. They are developing a portfolio of fully integrated diagnostic assays for early detection of disease. Currently their main focus is early detection of pancreatic cancer. Amplified Sciences has been in the news a lot recently. They won Ocean Insight Grant in February of 2021. The company was also accepted to the Q Bay Accelerator Program in Silicon Valley as part of the 2020 cohort. The company is run by former Lilly executive and serial life science entrepreneur Diana Caldwell.

Website: <http://amplifiedsciences.com/>

Autonomous Pivot is an Israeli-American agriculture technology (ag-tech) company that is helping jumpstart an increasingly strong trend of ag-tech start-ups in the Midwest. The company's stated goal is 'to enable growers to maximize yield and reduce costs by turning center-pivot irrigation systems into robotic platforms for autonomous irrigation, fertigation, and crop protection'. The company got started in the 2018 growing season and came to the Arch Angels to raise money based on overwhelming success during 2019. Autonomous Pivot achieved 100% customer retention rate from 2019 to 2020 and had an oversubscription for its product moving forward. The funds raised will help Autonomous Pivot meet its growing demand. The company is run by a successful group of scientist-businessmen including its Chief AI Officer, Yuval Aviel, who has past experience at self-driving car company, Mobileye.

Website: <https://www.autonomouspivot.com/>

Impetus Ag is a St. Louis based agriculture company working to create a pesticide that will help to control insects that are not currently controlled. The company expects to be able to help the farming industry increase the food supply by lowering the amount of crops damaged by insects each year. Impetus is led by CEO, Martha Schlicher, who has over 30 years of experience in the industry. Impetus is still in the early stages of development, but so far the results have been promising. The company already has interest from a number of large players in the agriculture industry. Impetus is using the money raised from SLAA to show proof of concept for an increasing variety of insects.

Website: <https://www.impetusag.com/>

Follow-On Deals

Adarza BioSystems is a St. Louis area based biotech firm that ‘manufactures a label-free platform technology that enables the simultaneous detection of hundreds of analytes in a single drop of fluid’. The company was able to raise \$25 million in February in order to help support the launch of ZIVA, its new product. Unfortunately, the Covid pandemic of 2020 put a hold on Adarza launching its planned technology. However, the company was able to pivot to a Covid based business plan in the short term in order to provide much needed Covid support and to ensure the health of the company moving forward. Adarza believes its technology can help doctors and scientists analyze information about Covid such as how long antibodies last and how much immunity is provided by vaccines, among other important information. Once the pandemic ends Adarza plans to be back on the road to success with their advanced blood testing products. The company is led by President and CEO Bryan Witherbee.

Website: <https://adarzabio.com/>

Aptimmune Biologics is an animal pharmaceuticals company based in St. Louis. They currently own the license rights to a cell line called ZMAC which can be used to fight against African Swine Fever. Aptimmune is led by CEO, Dr. Heather Bessoff. Dr. Bessoff has previous experience with successful biotech start-ups. Aptimmune conducted trials on ZMAC in 2020 and is pleased with the results. The company is looking forward to a strong 2021. The company is getting attention due to the devastating results of the African Swine Fever on the Chinese pig population in 2020. Aptimmune believe that its product could help reduce this risk for pigs all over the world. One of the board members for Aptimmune is SLAA Chairman Brian Kinman.

Website: <http://aptimmune.com/>

Benson Hill is a Midwestern based ag-tech company who ‘empowers farmers and food producers to improve the food system to feed the growing population’. The company aims to help increase health and nutritious eating for consumers and biodiversity and sustainability at the farmer level. The company is run by Matt Crisp who has made his career in venture capital and has worked with many ag based startups. Benson Hill earned its first Arch Angels investment in 2016 and has received multiple add-on investments since 2016.

Website: <https://bensohill.com/>

CoverCress (previously operated under the name Arvegenix) is an agricultural company that helps farmers by creating a crop that ‘covers and protects open soil between corn and soybean crops’. The crop the company created goes by the same name as the company itself, CoverCress. CoverCress not only helps farmers, it is also environmentally friendly. According to the company’s website CoverCress ‘produces a low carbon intensity feedstock and sequesters carbon as well’. CoverCress is used in the Midwest on the 30-32M acres of farmland that rotates to soybean. As of late 2020, the company ranks as one of the top 10 biggest Agtech and biotech firms in the St. Louis area. CoverCress’ leadership team has a combined 120+ years of commercial agriculture experience and is led by former Monsanto EVP Jerry Steiner.

Website: <https://www.covercress.com/>

Cultivation Capital is a St. Louis based venture capital fund that began in 2012. They focus mostly on life sciences and health tech, software and IT, and agriculture and food tech. They have a current investment in the start-up, FinLocker which is a financial tech firm that has been named a “min-corn.” Cultivation Capital’s tech fund topped \$70 million last year. Cultivation Capital began expanding to the Southeastern United States in 2020 with former Wash U professor Cliff Holekamp leading the way in South Carolina.

Website: <https://cultivationcapital.com/>

Elira Therapeutics is a St. Louis based company that is working to help people control their appetite through ‘purposeful modulation of the nervous system’s activity using non-invasive means’. The company is developing a drug free wearable patch that gives overweight adults increased control over how they eat by safely reducing their appetite. The company first received an investment from the Arch Angels in 2016 and has earned multiple add on investments since 2016.

Website: <http://www.elira.com/>

Ideate Medical received another investment from the St. Louis Arch Angels group in 2020 due to strong developments in late 2019 and early 2020. Ideate Medical is a medical device company operated out of St. Louis and Montreal that is completely changing the way endoscopes are cleaned in between uses by allowing for terminal sterilization. Instead of just disinfecting endoscopes like hospitals have done in the past, Ideate has invented the Steriscope sterilizer in order to ensure sterilized, healthy, and safe endoscopes for future uses. The team is led by William Wong and Robert Mosher, two longtime experts in the medical device space.

Website: <https://www.ideatemedical.com/>

Immunophotonics is a St. Louis based company that is turning tumor ablations into immunotherapy for cancer. The company first partnered with the Angels in 2018 in order to raise money to work towards clinical trials. Three years later and the Angels and Immunophotonics are still working together as Immunophotonics begins recruiting for one of its clinical trials. The company is attempting to fight ‘advanced solid tumors’ in this trial.

Website: www.immunophotonics.com

Moleculera and the Arch Angels have been involved since the Angels first invested in 2016. Since then, the Angels have added on to that initial investment every year. Moleculera helps test whether individuals psychiatric issues are a direct result of autoimmune disease. Research from 2018 showed that biomarkers included on Moleculera Labs’ Cunningham Panel™ are helpful in identifying a subset of autistic children likely to benefit from IVIg therapy. Through the IVIg therapy, they have many success stories and many testimonials of people who credit Moleculera for correctly identifying a disease that previously had been a mystery.

Website: <https://www.moleculeralabs.com/>

Programax is an app for ‘high school coaches to engage players in skill development and communicate to parents and other coaches.’ The company received its first investment from the Angels in 2016 and

an add-on investment this year. The app allows players and coaches to upload drills and plays and then ranks the players according to their age group.

Website: N/A

SentiAR is a St. Louis based company that is using the most recent advances in medical tech to be on the forefront of interventional procedures. The company describes its mission as ‘transforming interventional procedures with augmented reality.’ The company’s website (link provided below) shows excellent visuals of how they can create real time holographic visualization of the patient’s actual anatomy and float it over the patient to help increase the success of the doctor. The company is led by CEO Berk Tas who has a long history of working with a variety of medically focused companies. SentiAR has received positive press recently including being named a top 10 Cardiovascular Device Company by Medtech Outlook Magazine in 2019.

Website: <https://sentiar.com/>

Sequoia Sciences is a pharmaceutical company developing medicines targeting bacterial infection and cancer. In September 2018, Washington University researchers demonstrated Sequoia’s lead compound SQ1274’s efficacy in animal models of ovarian and uterine cancer. Scientists at Sequoia and AMRI worked together to optimize bifidenone: a plant- derived anticancer compound which was published in Journal of Medicinal Chemistry.

Website: <https://sequoiasciences.com/>

ACTIVE (80)

<p>Acera Surgical Adarza Biosystems Advocado Agribody Technologies Agvoice Aisle411 Amplified Sciences Apse Aptimmune Autonomous Pivot Bacterioscan Benson Hill Biosystems Boditrak Sports Bonfyre Cardiaform Cardialen CellAride CheckTheQ Cogno Coolfire Studios Cover Cress (formerly Arvegenix) Elemental Enzymes Elira Therapeutics Endostim Epharmix Euclises Pharmaceuticals Finlocker</p>	<p>Galera Generico Graematter Greetabl Gremlin Hatchbuck Ideate Medical Immunophotonics Impetus Ag Island Radar Company IV Diagnostics Kalocyte Katalyst Surgical Kingdom Scene Endeavors Kogent Surgical Kypha Lean Media Life Equals Lockerdome MaxOne (Programax) Mathbrix Mobius Therapeutics Moleculera Labs Nawgan Neuroolutions New Leaf Symbiotics (Trophomax) Nexmatix (Aerovolve)</p>	<p>Passage Pixel Press Technology Plastomics ProteoSense Pulse Therapeutics Radiologica Rovermed Rozzy Learning Ryvit S4 Scollar SentiAR Sequoia Sciences SixPlus (BookaLokal) Smart UQ SmashToast StaffedUp SteadyMD Summersalt (Lori Coulter) SwipeSum TrackBill Transactly Traxxon Tunespeak Viosera Therapeutics</p>
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OTHER INVESTMENTS (6)

CEASED OPERATIONS (13)

<p>Capital Innovators Cultivation Capital Fin Tech Funds I Cultivation Capital Life Sciences Fund I & II Cultivation Capital Tech Fund SixThirty The Yield Lab</p>	<p>Akermin (2016) Appistry (2017) Cervimark (2009) Edunn Biotechnology (2013) Epigenetx (2018) FocalCast (2020) Gamerail (2008)</p>	<p>Global Velocity (2017) Hirjo (2018) LangLearner (2013) Nanopore Diagnostics (2020) Soozie's Doozies (2020) StatRoute (2019)</p>
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EXIT (12)

<p>Full (10) Canopy Biosciences (2020) 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 Amedica Corporation (2010) Veniti - Acquired by Boston Scientific Corporation (2018) Galera - IPO (2019)</p>	<p>Partial (2) Clearent (2015) GainSight (2013)</p>
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