



**UAB** BILL L. HARBERT INSTITUTE FOR  
INNOVATION AND ENTREPRENEURSHIP  
The University of Alabama at Birmingham

# IMPACT REPORT

# OUR VISION: BUILDING AN ENTREPRENEURIAL ECOSYSTEM

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Innovation and entrepreneurship are pivotal for meeting the global challenges of this dynamic era. UAB is committed to providing the education, research and innovation necessary to meet these challenges and drive economic development in our region. Our team in the Bill L. Harbert Institute for Innovation and Entrepreneurship has been strategically focused on moving beyond the basic transfer of knowledge towards building a tailored innovation ecosystem that facilitates knowledge creation from the bench to commercialization. This ecosystem is intentionally designed to extend from students, faculty and staff to our community partners. Our goal is to be highly responsive, adaptable and intentionally directed to promote the efficient commercialization of our intellectual property and know-how.

Although COVID-19 has presented many hurdles for our UAB community, it hasn't dampened the spirit of innovation and entrepreneurship across the university, and that is reflected in this impact report. Our innovation ecosystem is on a positive upward trajectory as we continue to build on these successes. Even amid a global pandemic, the momentum driven by the innovative energy and entrepreneurial attitude is palpable across campus.

We thank our talented faculty, staff and students, as well as our community partners and stakeholders for helping us forge ahead with our mission to translate ideas to impact in 2020 and beyond.

Kathy Nugent, Ph.D.

Associate Vice President, Executive Director

Bill L. Harbert Institute for Innovation and Entrepreneurship



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## **Learn how we support innovation and collaboration across the university and within the community**

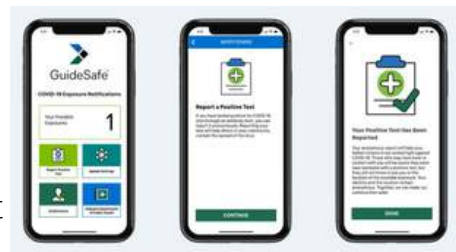
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# THE UAB COVID-19 RESPONSE

The UAB research community has been working diligently to defeat COVID-19. We thank the UAB student, faculty and staff innovators that exemplify innovation amid the pandemic.

## ADPH, UAB launch multifunctional GuideSafe™ Platform

GuideSafe™ – a platform developed by a team of experts at UAB to combat COVID-19 – launched its anonymous Exposure Notification App to the general public. Supported by CARES Act funding, the GuideSafe™ Exposure Notification App was built by UAB and Birmingham-based MotionMobs in active collaboration with the Alabama Department of Public Health and integrating Google and Apple's Exposure Notification System. The app can be downloaded at no cost by any individual across the entire state via iPhone and Android devices, making Alabama one of the first states in the U.S. to launch Google and Apple's joint technology to the general public.



## UAB biotechnology aids hunt for novel COVID-19 vaccine



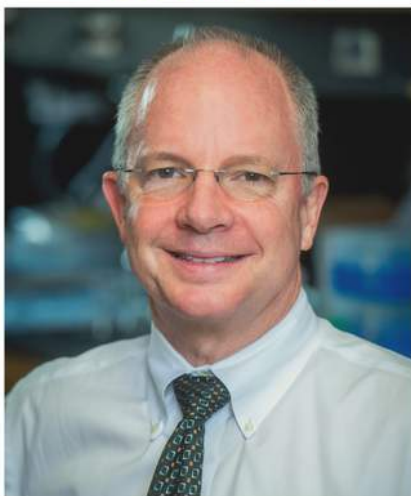
University of Alabama at Birmingham biotechnology is being used in Oregon in the hunt for a novel DNA vaccine for COVID-19.

The Earle A. Chiles Research Institute, a division of Providence Cancer Institute, is using the protein purification technology manufactured by TriAltus Bioscience — a UAB spinoff company housed at Innovation Depot, Birmingham — to purify the spike protein of the virus that causes COVID-19. The protein will be used for a sensitive immunology assay technique called an ELISA to measure the effectiveness of the new DNA vaccine, which is intended to evoke an immune response against the spike protein. The CL7 technology was invented by a team led by Dmitry Vassilyev, Ph.D., TriAltus co-founder and professor of biochemistry and molecular genetics at UAB. His novel method improved the high-yield, high-purity, high-activity purification of complex proteins by 10- to 500-fold. Vassilyev described it as “potentially the most efficient and universal tool for high-throughput studies of many significant biological systems” and said it may aid large-scale production of therapeutic proteins.



# 2020 INNOVATORS OF THE YEAR

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## **Faculty Innovators of the Year**

Sue Feldman, Ph.D.  
Mohanraj Thirumalai, Ph.D.  
Sixto M. Leal Jr., M.D., Ph.D.

## **Startup of the Year**

Solution Studios™

## **Staff Innovator of the Year**

Brian Rivers

## **Community Innovator of the Year**

Taylor Peake, MotionMobs

INNOVATION AMID A GLOBAL PANDEMIC





# OUR WORK ACROSS THE COMMUNITY

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UAB is a pillar for economic development across the state and beyond. Together with UAB schools, colleges, programs, and the Birmingham business community, we help students, faculty, and staff entrepreneurs launch sustainable startups with new and disruptive technologies. Our all time startup company figures show just a fraction of the university's overall economic footprint.

## ALL TIME FIGURES

**700**

JOB

created or maintained

**27**

LOCAL STARTUPS

operating in Birmingham

**9**

STATES

where UAB startups operate

**2**

COUNTRIES

where UAB startups operate

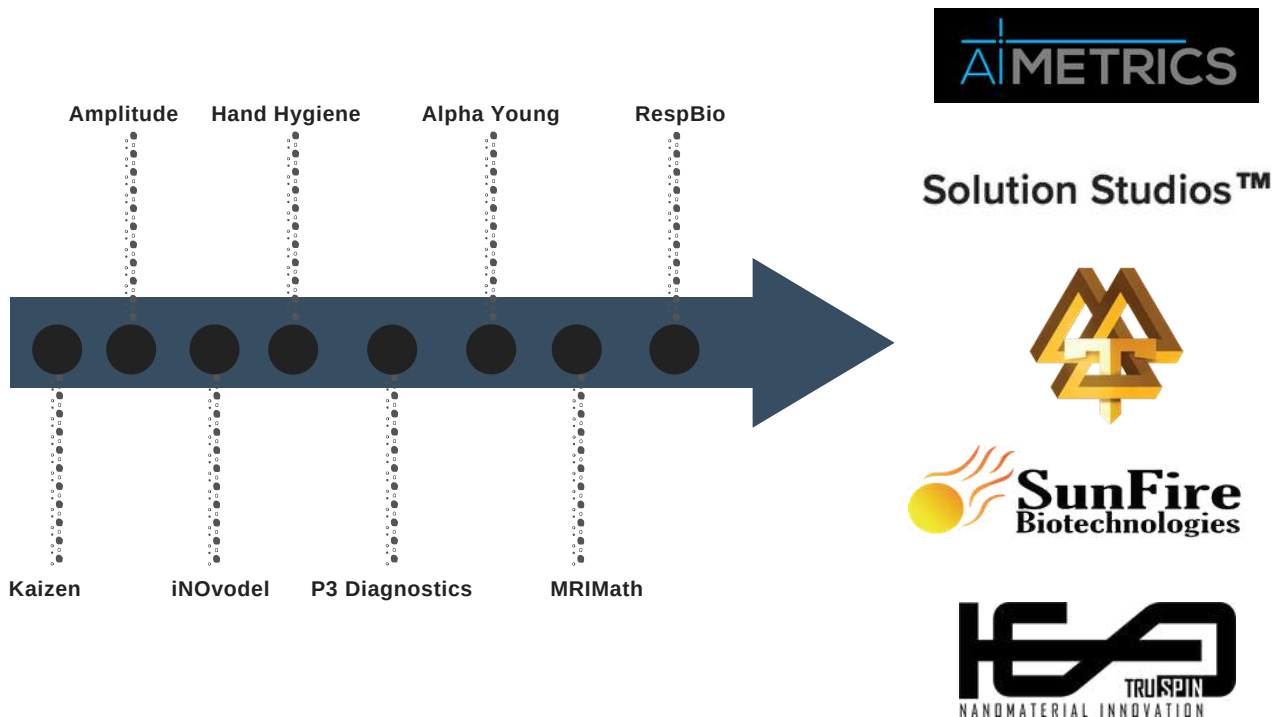
**\$4.5B**

VALUATION

of UAB startups

# GROWING UAB TECHNOLOGIES

## Forging the future - the UAB startup pipeline



## Introducing our 2020 startup companies

**AI Metrics** - An image viewing platform that leverages artificial intelligence and guided workflows to assist radiologists with image analysis and reporting by automatically generating multimedia reports.

**Solution Studios** - A digital space for students and clinicians to meet, form teams and address clinical problems through new products, prototyping, validation and commercialization.

**Sunfire Biotechnologies** - A clinical research organization for pneumococcal vaccine development support.

**Tricorder Technologies** - A device that can detect mouse pups, monitor light-temperature-humidity at the cage level, and collect census among other things, at a \$40 per cage on any rack system.

**TruSpin Nanomaterials** - Uses a proprietary alternating current electrospinning process to affordably manufacture nanofibers.

FORGING THE FUTURE OF STARTUPS



# OUR WORK ACROSS THE UNIVERSITY

We've adopted new business practices to promote organizational sustainability and ensure UAB stakeholder success. The recently-launched Innovation Fellows program delivers assessments on commercial value and allows for enhanced marketing of university technology. Our new online IPD form makes the intellectual property disclosure process more streamlined than ever before.

## 2020 FIGURES

**84**

**DISCLOSURES**

of intellectual property

**\$4.52M**

**REVENUE**

generated

**16**

**PATENTS**

issued in the United States

**\$414,000**

**AWARDED**

in SBIR/STTR funding

**44**

**LICENSES**

executed

**200**

**INVENTORS**

across campus engaged  
with our office



# OUR WORK ACROSS THE UNIVERSITY

The Bill L. Harbert Institute for Innovation and Entrepreneurship leverages UAB discoveries to impact society on a global scale. The Anvil Student Startup Bootcamp is our flagship, free 10-week entrepreneurship program offering mentorship, coaching and curricula designed to help student entrepreneurs launch a business. The below figures represent the program's all time impact since its inception in 2017.

## ALL TIME FIGURES

**15**

VENTURES

emerged from student bootcamp programming

**\$3.39M**

SALES

generated by startups

**26**

JOB

full time positions created or maintained

**\$1.27M**

CAPITAL

investments raised by startups

# BUILDING THE ECOSYSTEM

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## **UAB nationally ranked for entrepreneurship studies**

The Collat School of Business was ranked No. 48 on The Princeton Review's Top Graduate Schools for Entrepreneurship Studies 2021 list. Since 2006, The Princeton Review has compiled two school lists annually — an undergraduate and a graduate. Each list ranks the top 50 schools considered the best in the country for students aspiring to become entrepreneurs.

In 2021, UAB will enter the rankings for the first time. The 2021 program rankings are based on more than 300 undergraduate and graduate schools' entrepreneurship programs. In June-August 2020, The Princeton Review surveyed administrators at those schools. The survey had more than 60 questions, and more than 40 data points were analyzed to tally the rankings.

## **Promoting entrepreneurship across the enterprise**

We facilitate a culture of innovation through collaboration by encouraging cross-disciplinary partnerships and supporting university and community engagement. We drive initiatives that inspire and empower UAB faculty, staff and students to create effective processes, products, and ventures through a suite of non-credit-bearing programs delivered in partnership with the Collat School of Business.



STUDENT ENTREPRENEURSHIP

# INNOVATION IN STORYTELLING

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Increasing brand awareness among a broad stakeholder audience is integral to amplifying the story of innovation on campus and in the community. We harness an integrated communications strategy to highlight UAB innovators and their contributions to society. The below figures showcase the reach and impact of this storytelling, and demonstrate the UAB entrepreneurship ecosystem in action.

## 2020 FIGURES

**45,000**

IMPRESSIONS

from UAB News placements

**107M**

POTENTIAL REACH

on earned media placements

**22**

PLACEMENTS

featured in local/national media

**+1,800**

ENGAGEMENTS

on social media



# OUR TEAM

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Kathy Nugent, Ph.D.



Karthik  
Gopalakrishnan, Ph.D.



Justin Daigneault, MBA



Shawnda Jones



Scott Swindle, Ph.D.



Sat Balachander, Ph.D.



Karen Bernard, Ph.D.



Saksham Narang



Briana Bryant, MPA



Amanda Dove



Amanda Gray



Natalie Cox, J.D.



Rubin Pillay, Ph.D.



Patrick J. Murphy, Ph.D.



Molly Wasko, Ph.D.



Helena Christine, J.D.





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