

# 2022

Our year of growing university **research** and **entrepreneurship** in Georgia

## MEMBER UNIVERSITIES

Augusta University  
Georgia Institute of Technology  
Georgia State University  
University of Georgia

Clark Atlanta University  
Emory University  
Mercer University  
Morehouse School of Medicine



Georgia Research Alliance

# Research

We recruited 6 GRA Eminent Scholars.



KLAUS LEY AND LYNN HEDRICK  
Launched **Immunology Center of Georgia** at Augusta University



We welcomed 3 new GRA Distinguished Investigators.

**Debra Bangasser**, Georgia State  
*Neuroscience*

**Jason Azoulay**, Georgia Tech  
*Optoelectronics*

**Melissa Davis**, Morehouse School  
of Medicine • *Breast Cancer*



TODD GOLDE  
Relocated groundbreaking research  
in **Alzheimer's Disease** to Emory



QIN WANG  
Expert in how drugs affect the  
**neurological system** arrived at  
Augusta University

And we introduced a new category of superstar talent.

GRA Senior Fellows • Seasoned  
scientists who lead large,  
multidisciplinary research centers

**Alan Darvill**, UGA

**Paul Johnson**, Emory

**Allan Levey**, Emory

**Suresh Ramalingam**, Emory

**Krishnendu Roy**, Georgia Tech



SUMAN DATTA  
Pioneer in **next-gen transistors and  
semiconductors** came to Ga. Tech



LYNN KAMERLIN  
Uses supercomputers to **make  
enzymes better** catalysts; moved to  
Ga. Tech from Sweden

NSF released data showing  
Georgia's universities  
climbing national rankings  
for research.

We moved from #9 to **#8** in university  
R&D expenditures. GRA's work has  
contributed mightily to our state's  
rapid rise in the last five years.

2016	2021
1 California	1 California
2 New York	2 New York
3 Texas	3 Texas
4 Pennsylvania	4 Pennsylvania
5 Maryland	5 Maryland
6 Massachusetts	6 Massachusetts
7 North Carolina	7 North Carolina
8 Florida	<b>8 Georgia</b>
9 Michigan	9 Illinois
10 Illinois	10 Michigan
11 Ohio	11 Ohio
<b>12 Georgia</b>	12 Florida

## Key metrics from 2022



**\$899 Million**  
R&D Expenditures  
by GRA Academy



**+26%**  
Increase in Academy's  
R&D expenditures  
in just two years



**1,987**  
Jobs created last year  
in university labs

# Entrepreneurship

## Georgia's universities continued to invent products with market potential.

University scientists submitted 98 proposals and pre-proposals to GRA's venture development program in 2022. GRA awarded \$2.8 million in grants and loans to 55 projects and startups.

**Here's one to watch:** Andson Biotech (Ga. Tech) makes technology to analyze biochemicals

**Here's another:** Agrithera (Emory) makes cannabidiol more effective as a therapeutic

## GRA Venture Fund grew its portfolio.



 Sanguina

Nine startups joined the Fund in 2022; **Sanguina** and **Huxley Medical** received investment (along with the seven companies below, right). One of the fund's earliest investments, **Urjanet**, had a successful exit after being acquired by Arcadia, a company that creates technology to fight the global climate crisis.

## FDA awarded diagnostic 510(k) clearance to technologies produced by four of our startups.



- ▲ **BioCircuit's** NerveTape, which repairs damaged nerves
- **EarliTec's** eye-tracking device to detect autism earlier



- ▲ **TendoNova's** surgical tool Ocelot (to repair chronic tendinopathy)
- **AngioCloud's** medical imaging/processing platform

## Key metrics from 2022



**\$373 Million**

Outside venture capital in GRA university startups last year



**1,710**

Jobs created in university startups (more high-tech workforce preparation)



**\$191 Million**

Revenue generated + grants attracted by GRA portfolio companies (last year)



## Three projects joined the Greater Yield portfolio – all of them benefitting the poultry industry.

- **AudioT** safeguards the welfare of broiler chickens by identifying and analyzing the sounds they make.
- **VR-driven automation** gives workers remote control over robotics in poultry processing.
- **PoultryE** uses imaging technology to track broiler chickens and hens to monitor health, egg-laying

## Several enterprises in our portfolio scored big funding rounds in '22.

Apptega	\$37M
Codoxo	\$20M
Nyra Med	\$20M
EarliTec	\$19.5M
Micron	\$14M
BioCircuit	\$ 9M
Altesa	\$ 4M

All are receiving investment from GRA Venture Fund.

Our venture development program hit a **MAJOR** milestone.

**\$2.1 Billion**

Total outside investment in GRA-backed projects and startups

# 5 Other Important Happenings in 2022



## We gathered in the name of exploration.

In August, GRA convened its Academy of Eminent Scholars in person after two years of virtual meetings. We were honored to be joined by University System of Georgia Chancellor **Sonny Perdue**. In November, Georgia universities participating in our equipment sharing program, GRA Core Exchange, got together at Emory. GRA President **Susan Shows** was the keynote speaker.

## Our GRA Student Scholars program was a major success.

**Fifteen undergraduates** from across Georgia worked alongside top scientists on funded research projects. Designed to address underrepresentation of women and minority populations in STEM-related fields, the GRA program is set to expand in 2023.



## We reported GRA's economic ROI.

In 2022, GRA's return on Georgia's investment was just under \$1.5 billion. Since our founding in 1990, we've generated an ROI of \$11.7 billion.

ANNUAL ROI

**\$1.49 Billion**

Generated by GRA programs including Eminent Scholars, Distinguished Investigators, Senior Fellows and startup companies

TOTAL ROI (since 1990)

**\$11.7 Billion**

**Stay current with university research + entrepreneurship in Georgia.**

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## GRA helped stage Georgia's AgTech Summit.

Held in Tifton in March, the summit convened innovators at Georgia universities and the state's farmers and food producers – all to review technologies that improve efficiency, increase yields and identify new revenue streams. GRA co-produced the summit with the **Georgia Department of Economic Development**.

## We forged a strategic partnership with the Georgia Chamber.



An affiliate agreement signed in June identifies **eight potential areas of collaboration** and outlines the formation of a task force to develop cooperative activities to further boost Georgia's economy and drive innovation.



Georgia Research Alliance