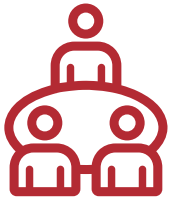
The impact and value of the **Georgia Research Alliance**

Georgia Research Alliance

How GRA works

INVESTING IN TALENT + TECHNOLOGY

GRA partners with universities to **recruit world-class scientists** as GRA Eminent Scholars. GRA provides each recruit with **state-of-the-art lab technology**.



LAUNCHING STARTUP COMPANIES

GRA's venture development program fuels the launch of **more startup companies** out of university labs — by providing grants, loans and seasoned advice.

ACCELERATING COMPANY GROWTH

The most promising startups get added investment and guidance from **GRA Venture Fund**, a unique public-private fund.

GRA's value

MONEY  **Financial gain for Georgia through extraordinary ROI**

ANSWERS  **To the needs of Georgians and the rest of humankind**

REPUTATION  **Stronger credibility and competitiveness for our state**

MONEY

GRA's work has generated $6.1 Billion ROI

$649M
in State investment

$4.9 BILLION
in Federal and private research grants and matching funds

$1.2 BILLION
in venture investment for GRA-backed startups

YEARLY RETURNS ON GEORGIA'S INVESTMENT:

$500 Million+
in research grants
awarded to Scholars & their teams

160 new Georgia companies
generating $155 million in revenues (2018)

1,300+ new Georgia jobs
in Scholar labs, supported by non-state $$

1,539 professionals
employed in new Georgia companies

ANSWERS

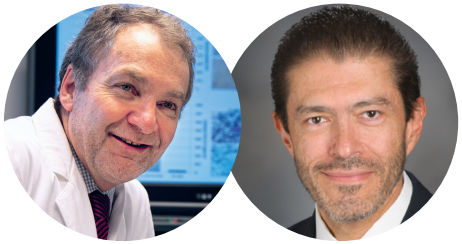
GRA Eminent Scholar Scott Jackson (UGA) was first to map the peanut genome, opening the door to hardier, higher-yield **peanut crops**. GRA Distinguished Investigator David Bertioli also improves cultivated peanuts.

People in **rural areas** can be treated by doctors far away, thanks to technology pioneered by GRA-backed startups Digital Vision and Reach Health.

This tiny, bandage-like patch can deliver **pain-free vaccinations**. Micron Biomedical, a startup supported by GRA, is bringing it to market.

GRA Eminent Scholar Ami Klin invented a way to **detect autism** in infants as young as 3 months old, speeding early treatment. He leads the acclaimed Marcus Autism Center, one of the largest of its kind.

Technology from startup Pindrop (220 employees) stops **phone fraud**, saving companies hundreds of millions of dollars yearly.



Two of Georgia's prominent **cancer centers** in Augusta and Atlanta are led by GRA Eminent Scholars.

Indoor agriculture is becoming more profitable thanks to UGA startup Candidus, which develops cost-saving lighting.

Georgia has real momentum in attracting R&D funding.

#1

Growth rate of university research funding in the SE

Source: National Science Foundation, 2015

#11 *(and climbing)*

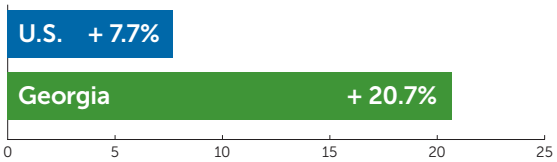
National ranking for total university R&D

Source: NSF Federally Funded R&D Expenditures, 2017

+13%

Outpacing the nation in funding life science research (10-yr. period)

National Institutes of Health funding for life sciences research since 2010

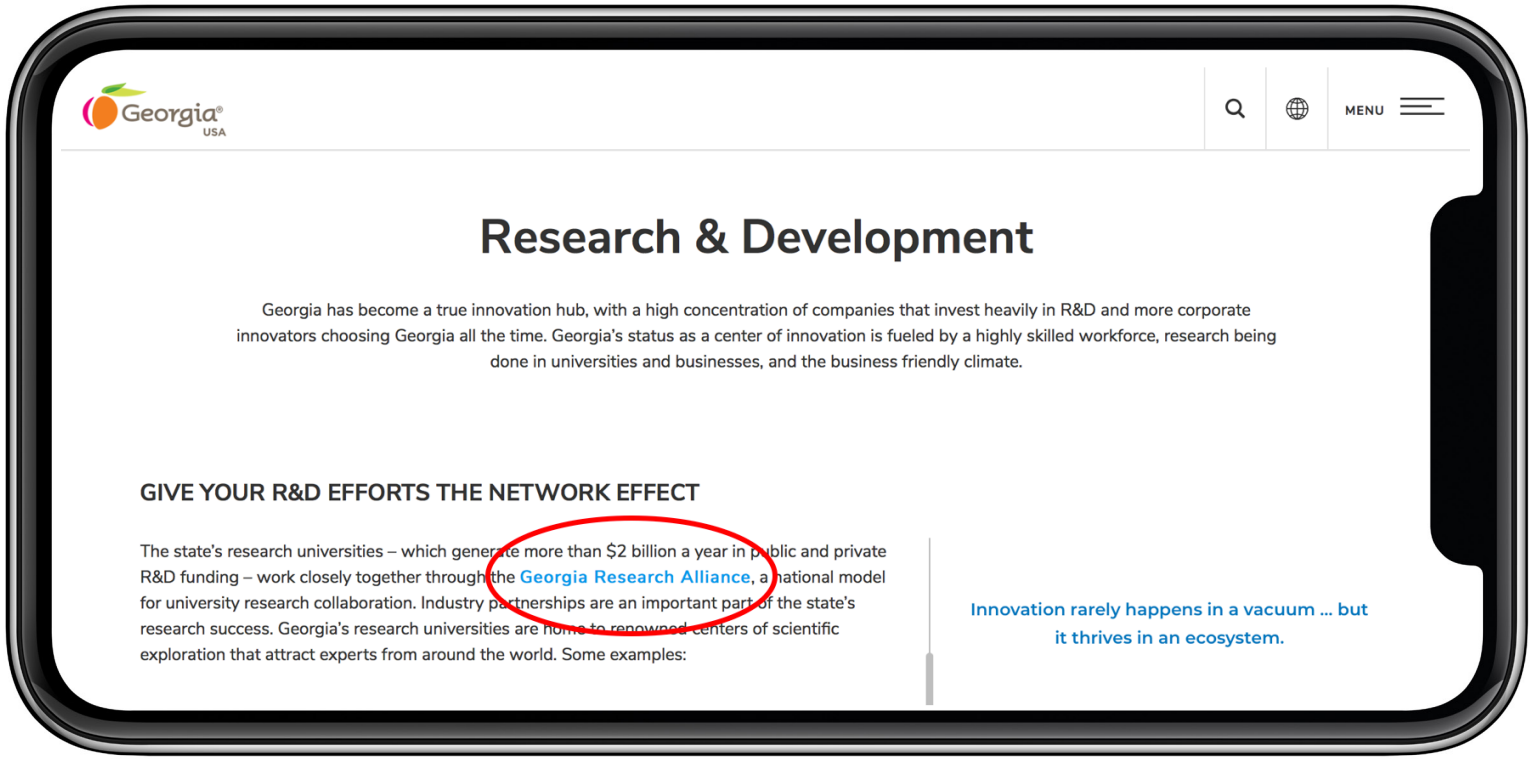


GRA Eminent Scholars and GRA startups often attract the funding and support of major partners.

Cystic Fibrosis Foundation – Adding Tomorrows
Chevron
Children's Healthcare of Atlanta
Coca-Cola
Bill & Melinda Gates Foundation
Google Ventures
Sanofi Pasteur
Southern Company
Toyota Research Institute
Varian

GRA is an asset in Georgia's marketing story.

Georgia's Department of Economic Development uses GRA as a central talking point when touting the state's R&D activity.



The Face of High-Value Jobs

Why talented professionals want to work at Axion BioSystems, one of the hottest companies in the GRA Venture Fund portfolio

Mike, *Scientific Director*

- Helps grow the company by unifying science and product development
- Recruited from GE Healthcare in the United Kingdom

"We have gifted scientists here. I help shape the question, they find the answers. Axion has been really good at making things people actually want to buy."

LeBraun, *Software Engineer*

- Tests and refines Axion's software, providing quality assurance
- Looked seriously at moving to Nevada, but Axion was "the perfect fit"

"There are a couple of companies out there that have similar technology, but no one can match what we have. Our technology does things other systems can't do."

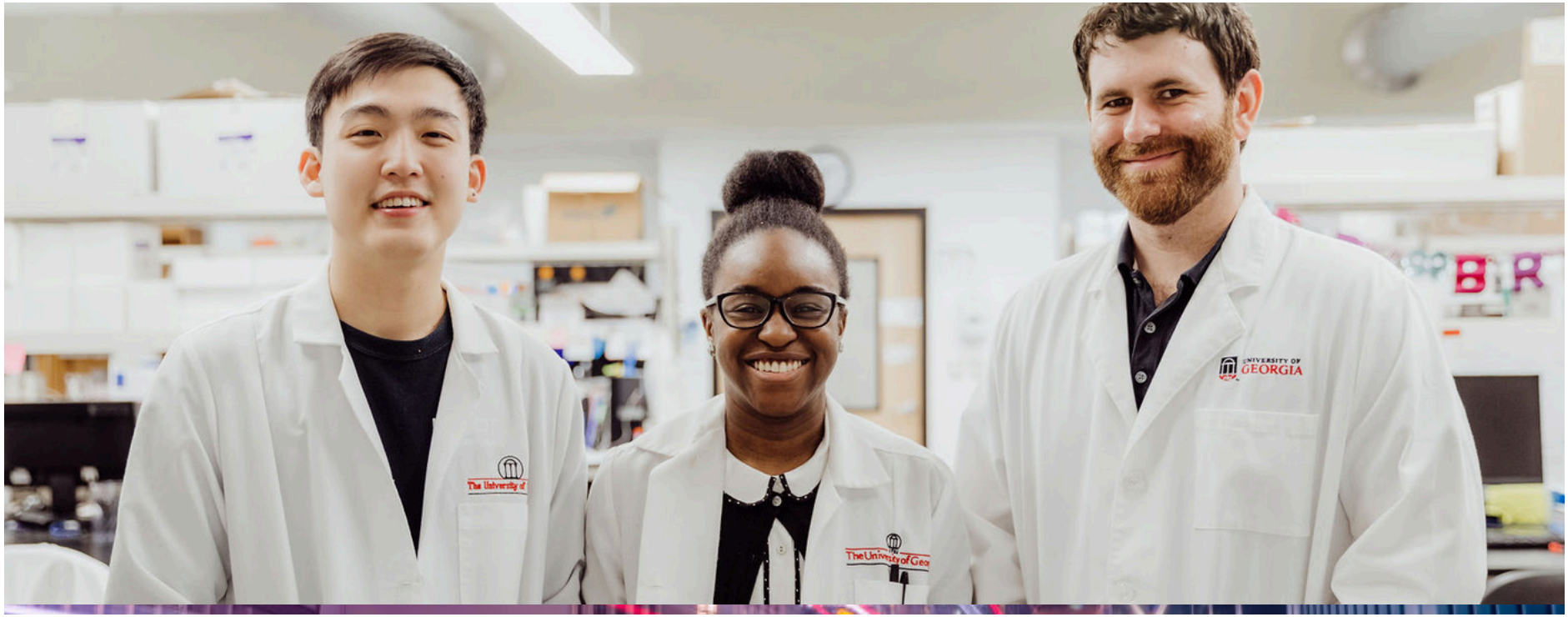
Heather, *Applications Scientist*

- Develops applications that give scientists the power to test and see what they couldn't before
- Joined from academia because "I could work on so many different projects"

"Having a cutting-edge company like Axion allows people who have gotten their Ph.D. in Georgia to be able to stay here."

Research-Funded Job Creation

Young professionals on why they work for UGA's Center for Vaccines and Immunology



David, *Research Technician*

- Runs blood tests on vaccinated people to help shape vaccine exploration
- Accepted a lab position in 2018 as a newly minted UGA grad

"I *wanted to get experience with a good research lab before starting medical school. I grew up always wanting to help people."*

Gabrielle, *Research Professional*

- Purifies proteins for testing and potential use in new vaccines
- Joined after her pharmaceutical employer downsized its workforce

"Our team focuses on vaccines for people whose immune systems are compromised. These are people who die from things that should not make them sick."

James, *Project Leader*

- Helps develop vaccines that could protect from multiple forms of flu
- Worked with Dr. Ross in Georgia and followed him to Georgia

"The way they make flu vaccines hasn't changed since 1940. Using modern technology, we're working to bring medical practices up to the 21st century."

The center is led by GRA Eminent Scholar Ted Ross and includes GRA Eminent Scholar Karen Norris