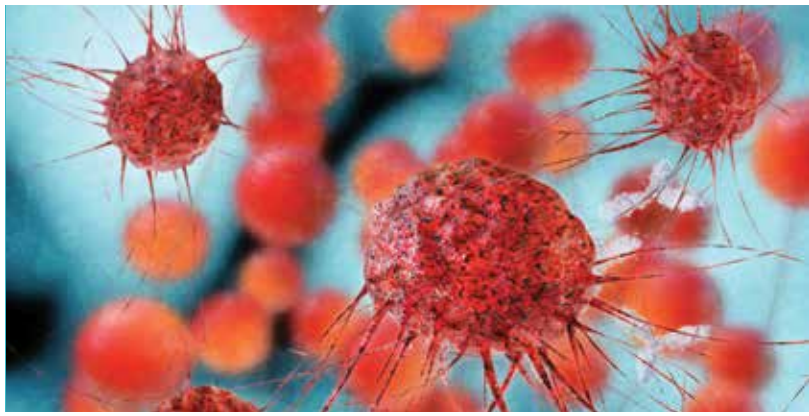
The University of Georgia
INNOVATION GATEWAY

Fueling the Innovation Economy

575+ products
introduced to the marketplace

130+ companies started
based on UGA research

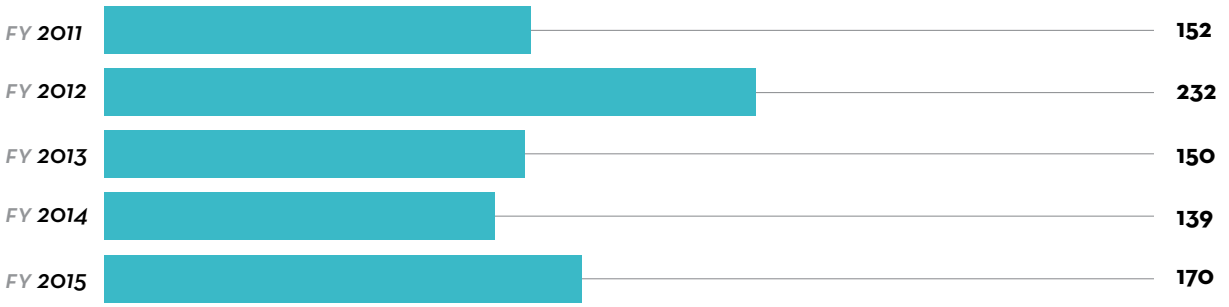
$100M economic impact
from jobs created



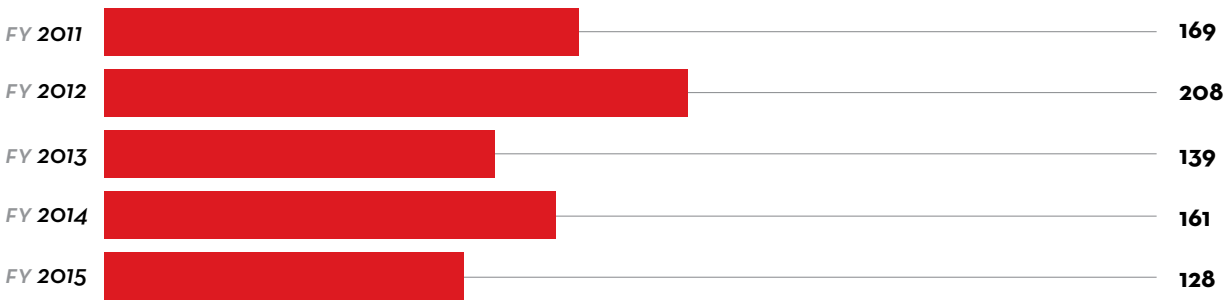
2015 Annual Report

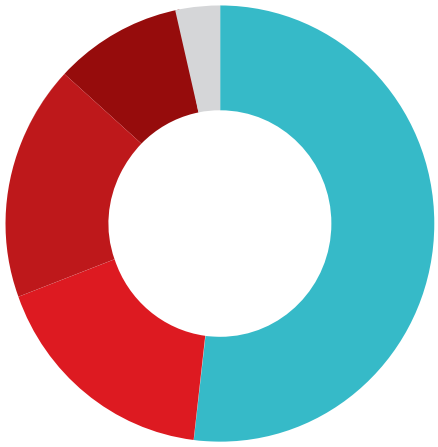
FY 2015 BY THE NUMBERS

Licenses and Options



Invention Disclosures

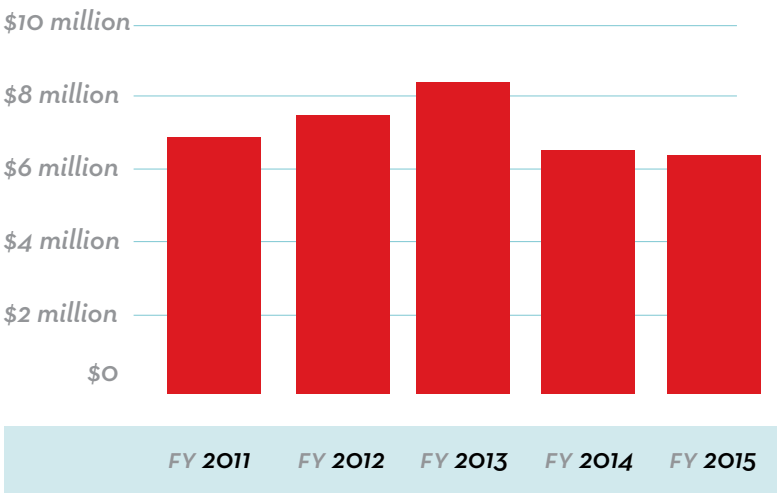




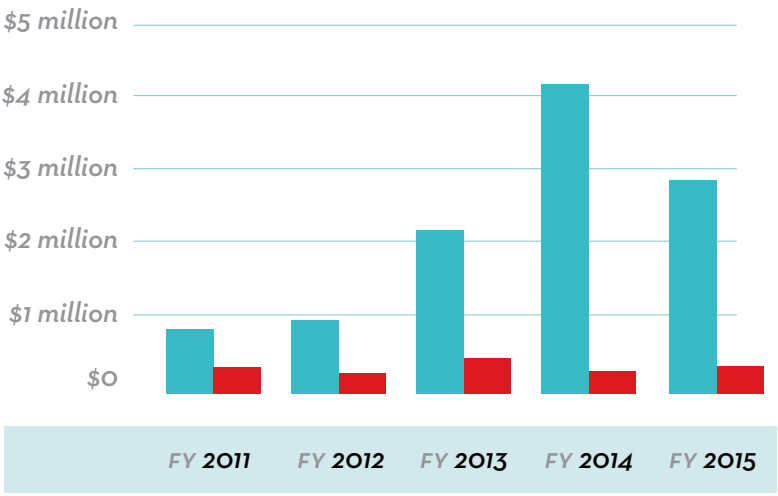
Top 5 Product Categories

- Agronomic Crops: 52%
- Turfgrass/ Ornamentals: 19%
- Pharma/Biotech: 19%
- Horticultural Food Crops: 7%
- Engineering/Other: 3%

License Revenues



External Grant Funding Awarded to UGA Startup Companies



Federal SBIR GRA Ventures

TOP 10

Among all universities for total licenses and options executed (for 8th consecutive year)

TOP 20

Among all public universities in licensing revenue (for 11th consecutive year)

TOP 25

Among public universities and Top 75 among universities worldwide in issued patents

55

Number of new products in FY 2015

5

Number of new UGA startup companies in FY 2015

LICENSING SUCCESS STORIES

INNOVATION GATEWAY *maximizes the impact of UGA research discoveries and fosters economic development through industry partnerships and new venture formation. Innovation Gateway combines the university's intellectual property licensing and startup support function to streamline the path from the laboratory or field to the marketplace, ensuring that UGA research discoveries reach their full potential for public benefit.*

Jerry Johnson / INVENTOR OF THE YEAR

Jerry Johnson, professor of crop and soil sciences, College of Agricultural and Environmental Sciences, has developed or co-developed more than 45 new small grain crop varieties, including several wheat and barley cultivars. His research, which focuses on the development of small grain crops that resist common diseases and pests, such as leaf rust, powdery mildew and Hessian fly, benefits farmers throughout the Southeast.

NATIONAL RECOGNITION FOR UGA INVENTORS

The National Academy of Inventors inducted Michael A. Dirr, emeritus professor of horticulture, and Robert Ivarie, emeritus professor of genetics, into its 2014 class of NAI Fellows. Ivarie's research produced inventions to genetically engineer chickens for efficient production of protein-based therapeutics. A company based on this technology recently received FDA approval to market its first product, a therapeutic for a rare human disease. Dirr's vast and innovative contributions to the horticulture industry include the introduction of more than 150 new plants. His signature contribution is the development of hydrangea cultivars that can bloom multiple times throughout the growing season.

Michael A. Dirr

Robert Ivarie

> NEW TECHNOLOGIES

Peanut varieties

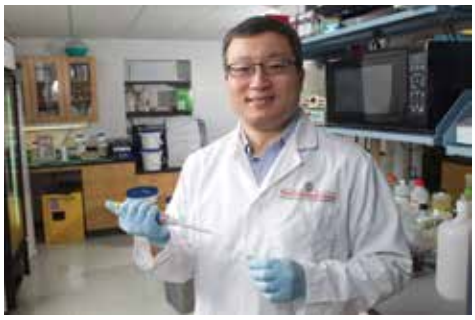
UGA peanut varieties contribute to a nearly $900 million crop value for Georgia and account for more than 90 percent of the market. Two new peanut varieties, Georgia-13M and Georgia-14N, were licensed this year. UGA expects to see a greater value for these high-yielding, high-oleic varieties that will help strengthen Georgia's standing as the #1 state for peanut production.

Cybersecurity software

A technology developed by UGA computer scientist Roberto Perdisci was licensed to Damballa, a Georgia cybersecurity company. The technology, dubbed WebWitness, traces the origins of malware downloads to a network and enables the development of suitable defenses.

Turfgrass variety

TifTuf™ bermudagrass, the newest turfgrass release from UGA plant scientists Wayne Hanna and Brian Schwartz of the Tifton turfgrass breeding program, was licensed to a Georgia company, New Concept Turf, and is marketed by The Turfgrass Group. This exciting new variety is a high-quality turf that exhibits both drought- and wear-tolerance.



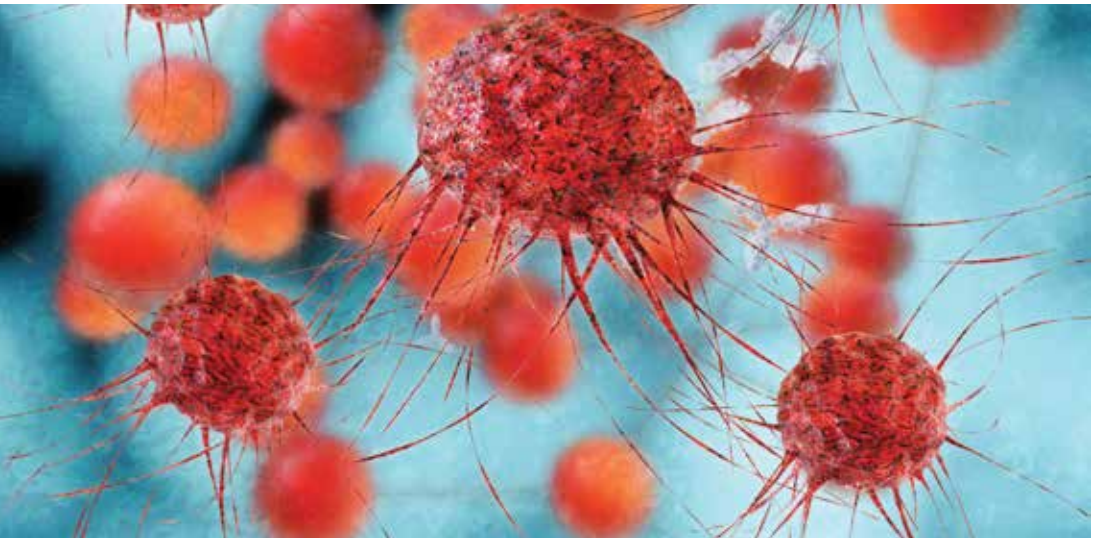
Human vaccine

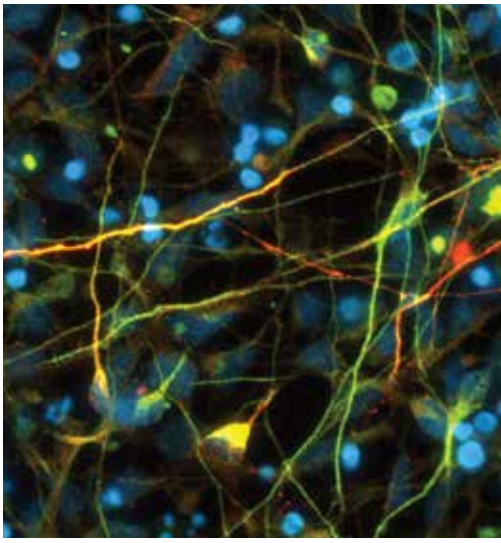
Biao He, Georgia Research Alliance Distinguished Investigator and Fred C. Davison Distinguished Chair in Veterinary Medicine, has developed a vaccine that has the potential to address efficacy issues with the current mumps vaccine. The technology was exclusively licensed to an international biopharma company.

Poultry vaccine

Two new poultry vaccines originating from UGA research reached the market to help protect Georgia's $28 billion poultry industry against respiratory disease. Also, a new poultry vaccine spray cabinet developed at UGA to enhance vaccine efficacy was licensed to a major animal health company.

STARTUP SUCCESS STORIES





Steven Stice / ENTREPRENEUR OF THE YEAR

Steven Stice, D.W. Brooks Distinguished Professor, Georgia Research Alliance Eminent Scholar and director of the Regenerative Bioscience Center, has led industry and academic research on pluripotent stem cells for over 20 years. He was a cofounder and both CSO and CEO of Advanced Cell Technology, the only U.S. company currently using human pluripotent stem cells in human clinical trials. At UGA, he co-founded four startup companies, including ArunA Biomedical, the first company to commercialize a product derived from human pluripotent stem cells. The company has developed stem cells that were used to facilitate approval of Pfizer's current cognitive-enhancing pharmaceuticals.

UGA STARTUP ACQUIRED FOR $8.4 BILLION

Synageva Biopharma, a 2013 Innovation Gateway incubator graduate, was acquired this year by global biopharmaceutical company Alexion Pharmaceuticals for $8.4 billion. The company's lead drug, Kanuma™, is an enzyme replacement therapy for lysosomal acid lipase deficiency, an ultra-rare disease that causes a range of serious health problems. In the U.S., Kanuma™ recently was approved by the FDA for treatment of patients of all ages. It is also sold in the European Union, and regulatory approval is being sought in Japan.

> COMPANY HIGHLIGHTS

Biotech

MuniRem Environmental, LLC, uses its MuniRem® technology, developed by professor of geology Valentine Nzengung, to instantly neutralize exploded and unexploded munitions in soils, water and on surfaces. The incubator resident company provides green remediation technologies to Fortune 100 companies, environmental organizations, and U.S. and international military agencies.

Agriculture

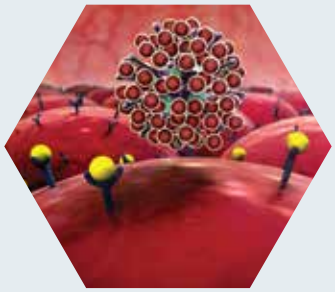
Phytosynthetix, an incubator resident company, was awarded a $95,000 SBIR grant from USDA for the development of biological feedback control mechanisms for LED grow lights. The feedback sensors will allow for maximum photosynthetic efficiency with minimal energy consumption and can be used to control flowering and plant maturation.

Biotech

Incubator resident company Abeome is forging corporate partnerships by leveraging the strength of its AbeoMouse™ technology, positioning it to become a major biopharmaceutical products company. AbeoMouse™ is a triple transgenic mouse engineered with an enhanced immune response that allows rapid identification of the most advanced antibody drug candidates.

Software

Incubator graduate company Cogent Education exclusively licensed education software technology developed by UGA researchers for real-time monitoring of student learning performance. The company, which recently began selling its suite of STEM instructional case studies to Georgia school systems, is located in downtown Athens and now employs 25 people.



Biotech

Glycoscientific, a carbohydrate consumables company, is working to develop and commercialize glycosylation-specific research reagents. The incubator resident company completed its first commercial sale of antibodies through an arrangement with a major global distribution company.

The University of Georgia
INNOVATION GATEWAY

Moving UGA discoveries to the marketplace

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