

Center for Applied Genetic Technologies (CAGT)- Plants

The Center for Applied Genetic Technologies (CAGT) Building is a 67,160 sq. ft. genomics research facility that houses a state of the art genomics core, five academic plant science research programs, and the Georgia BioBusiness Center. The building was completed in August 2001 and dedicated on 28 October 2002.

CAGT Faculty

- Dr. Andrew Paterson, Distinguished Research Professor
- Dr. Wayne Parrott, Professor
- Dr. Stephen Knapp, Professor/GRA Eminent Scholar of Crop Genomics
- Dr. Charlie Brummer, Professor
- Dr. Roger Boerma, Distinguished Research Professor

CAGT Milestones

- Since 2002 the University of Georgia Research Foundation in collaboration with the Georgia Seed Development Commission has licensed the marketing rights of these six Roundup Ready[®] soybean varieties developed by the UGA soybean improvement program to the following companies: AgSouth Genetics ('Prichard RR', 'AGS751 RR', and 'Boggs RR'), UniSouth Genetics ('USG 7732nRR'), Monsanto Company ('H7242 RR'), and Pioneer/Dupont ('P 97M50RR'). These varieties were grown on over 400,000 acres and were planted in over 80% of Georgia's soybean fields. The royalty income on these varieties has exceeded \$600,000/year.
- Research in crop genomics has provided reference maps and associated molecular tools that are international standards for several of the crops that we work on (cotton, sorghum, sugarcane, peanut, bermudagrass, pearl millet, finger millet and wheat). These tools have been widely distributed and utilized to address a diverse set of topics ranging from fundamental questions in genetics and evolution, to identification of DNA markers needed to address specific local problems.
- DNA markers developed at UGA are being employed in a national program to enhance the oleic acid content of soybean seed.
- The complete sequencing of the first 'tropical' (C4 photosynthesis) cereal, sorghum, will provide a model for most aspects of research and improvement of a wide range of crops and is reinvigorating private investments in this crop.

- Another important project involves developing a database of the genetic diversity in the remaining Longleaf pine population, including trees at the Joseph W. Jones Ecological Research Center. CAGT faculty comprising forestry, crop and soils, and plant biology disciplines are providing an interdisciplinary approach to this issue.
- CAGT successfully recruited a Georgia Research Alliance Eminent Scholars (Dr. Stephen Knapp). This has expanded the scope of CAGT's research capacity significantly, particularly with bridging academic research and commercialization. CAGT has first class expertise in legume cloning technologies, genomics, proteomics, and bioinformatics research as applied to crops and environmental applications. Some specific areas of expertise include alternative fuels derived from genetically modified crops and industrial oil crops.
- Awarded \$5.1 million in contracts and grants in FY02; Obtained \$3.5 million in funding from the Georgia Seed Development Commission and the Georgia Research Alliance to create an GRA Eminent Scholar in Crop Genomics; Awarded \$3.6 million in contracts and grants in FY03; Awarded \$4.8 million in contracts and grants in FY04; Awarded \$3.2 million in contracts and grants in FY05.