### november

#### **D.W. BROOKS LECTURE AND AWARDS**

The annual D.W. Brooks Lecture features a renowned name in agriculture, with past speakers including Glenn Burton, Norman Borlaug and former President Jimmy Carter. Plant scientist and 2014 World Food Prize Laureate Sanjaya Rajaram will be this year's speaker. A successor of Borlaug, Rajaram's research led to an increase in world wheat production by more than 200 million tons. The D.W. Brooks and College of Agricultural and Environmental Sciences awards were established in the 1980s and honor college and UGA Cooperative Extension faculty for their work.

> Tuesday, Nov. 10, 2015 **Lecture** 3:30-4:30 p.m.

**Reception** 4:30-5:30 p.m.

UGA Hotel and Conference Center, 1197 South Lumpkin Street, Athens, GA 30602

For more information, visit caes.uga.edu/events/dwbrooks.



**FOLLOW THE COLLEGE OF AGRICULTURAL** AND ENVIRONMENTAL SCIENCES FOR **MORE EVENTS AND NEWS** 







## january

#### GEORGIA AG FORECAST SEMINARS •

The college hosts a series of seminars across the state at the start of each year to get timely research and information to the producers, businesspeople, policymakers and consumers affected by the business of agriculture. This year's special topic, presented by the UGA Center for Agribusiness and Economic Development, will be the effects of sales tax changes, such as the Georgia Agriculture Tax Exemption (GATE), on localities and across the state.

Seminars will be held in 2016, on the mornings of:

**Thursday, Jan. 21,** at the Carroll County Ag Center, in Carrollton, Georgia

Friday, Jan. 22, at Unicoi State Park in Cleveland, Georgia

Monday, Jan. 25, at the Cloud Livestock Facility in Bainbridge, Georgia

Tuesday, Jan. 26, at the Tifton Campus Conference Center in Tifton, Georgia

Wednesday, Jan. 27, at the Blueberry Warehouse in Alma, Georgia

Friday, Jan. 29, at the Georgia Farm Bureau building in Macon, Georgia

Registration opens Nov. 2, 2015. Individuals, \$30 each; table of eight, \$200.

For more information, visit georgiaagforecast.com or follow #agforecast.

### march

#### **FLAVOR OF GEORGIA**

### **FOOD PRODUCT CONTEST**

An annual food product contest hosted by the UGA Center for Agribusiness and Economic Development, a unit of the college, Flavor of Georgia provides a stage for the state's culinary entrepreneurs, expanding opportunities and opening new markets.

Registration opens Nov. 2, 2015.

Participants submit food products in January to be judged. Winners are announced at the final ceremony **March 15, 2016.** 

Georgia Freight Depot, 65 Martin Luther King Jr. Drive NW, Atlanta, GA 30303 For more information, visit flavorofga.com or follow @Flavor\_of\_GA.

# Research Stems from Collaboration

n 2004, California, Wisconsin and New Jersey were the first to allocate billions of dollars of state funds toward stem cell research. National Institutes of Health (NIH) grants for \$25 million went to embryonic stem cell researchers, up from \$10 million the year before. More than 200 members of Congress urged then-President George

Mouse motor neurons

neurons (red) from stem

cells help with the study

of neurons in muscles.

This will lead to better

treatments for spinal

cord injuries and Lou

Gehria's disease.

(green) and support

W. Bush to expand federal funding of embryonic stem cell research.

Closer to home, the Regenerative **Bioscience Center** (RBC), hosted by UGA's College of Agricultural and Environmental Sciences, was born in 2005. Steven

Stice, a Georgia Research Alliance Eminent Scholar and D.W. Brooks Distinguished Professor in CAES, was selected to lead the center.

"UGA already had outstanding faculty members and researchers working on stem cells," Stice said. "What was needed was a new, internal, collaborative coalition (at the university) that could promote spontaneous interactions between researchers who might not have been natural collaborators in the past."

Through this initial collaboration and educational focus, the RBC was awarded one of five NIH-sponsored grants to hold a biannual, five-day Human Embryonic Stem Cell (HESC) Toolbox workshop, with the goal

### The Regenerative Bioscience Center marks a decade of revolutionary stem cell research

of training scientists from around the world. By 2008, more than 100 scientists, half from Georgia institutions, had been trained in HESC culture and maintenance.

Multiple research laboratories and affiliated colleges are tied to the RBC network to facilitate interaction within multiple disciplines and research areas. More than 30 researchers make up the center, including veterinarians, toxicologists, biochemists and pharmacologists.

"What I'm seeing today is the broader reach that we have to include more cross-disciplinary involvement," Stice said. "Through our translational approach to research, we are significantly expanding the perspective of veterinarians, scientists and even clinicians, and eradicating the practice of researching in isolation."

The basic idea of stem cell therapy was simple: replace dying cells in a patient suffering from Parkinson's disease, for example, and they would recover. Researchers quickly found it to be much more complex than simply isolating stem cells and providing them to patients.

"It was naïve thinking, that one could make dopamine-producing cells in the lab similar to those lost in Parkinson's

that could be injected very quickly into the brain, and that's all we would need to do," Stice said. "Many coordinated and complementary 'instruments' are needed to play the symphony of regenerative medicine using stem cells."

This year carries great promise for stem cell research, but there is a need to increase productivity of the drug development process as far as granting approval and providing safer drugs for consumers. Today, with the addition of new faculty, the RBC has strengthened its position in both drug discovery and in the field of toxicology.

"I think there will be a real push in the future for use of stem cells, not so much as therapy, but as a delivery mechanism," Stice said. "The problem with stem cells right now is the variations and inconsistency of results. We, as researchers, have to get more consistent results and there are a number of ways of doing just that."

As research continues to evolve, so will the members of the RBC. "The RBC is a place for researchers to come together to share and build connections," Stice said. "People will continually come and go as opportunities present themselves, but the collaborative bonds will remain forever." • Charlene Betourney