

# ARChiveS

## ARCS® Foundation Atlanta Chapter

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### UPCOMING EVENTS

Jan 11	General Meeting
Feb 16	Educational Event Georgia Tech
March 14	Board Meeting
April 26-29	Cincinnati Retreat
May 9	Annual Meeting & Luncheon

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### Climate Expert Challenges Audience

Dr. Berrien Moore, Dean of the College of Atmospheric and Geographic Science at the University of Oklahoma and Director of the National Weather Center, opened his engaging talk at the 2011 Annual Scholar Award Lunch by promising that he would "Tell us what we know, what we think we know and what we don't know" about climate change.

Dr. Moore quickly reviewed highlights of scientific research undertaken since 1960 that shows Co2 in the atmosphere has definitely increased due primarily to fossil fuel emissions. He stated that the increase in Co2 historically correlates directly with industrial advances. More recent increases are due primarily to the growing economies of China and India. He further noted evidence of the reduction in the size of the polar ice cap.

Dr. Berrien continued to engage the audience with key highlights of "what we think we know." He speculated that the



earth would experience more atmospheric and climatic fluctuations that could result in significant drought and rainfall in various areas on the globe. He continued by asserting that what we don't know is "how sensitive the climate system is to increases in greenhouse gases."

Contemplating future challenges to scientists, Dr. Moore noted how very difficult it

would be to swap our current energy system with one that is carbon neutral such as reliance on biofuels or wind farms. He did see some promise in increased use of natural gas and further expansion of productive use of waste produced by landfills. He acknowledged a deep regret about the politicization of the climate change debate.

Dr. Moore concluded his insightful address by challenging young scientists to communicate clearly and honestly about issues they uncover and advocating for increased financial commitment to scientific research despite a time of economic austerity.

Contributed by  
Anne Easterly

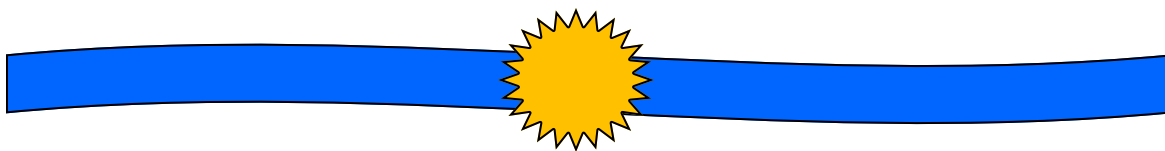
### Don't Miss the General Meeting and Luncheon

**Wednesday, January 11, 2012 at 10:30 Northern Trust, 3282 Northside Pkwy NW**

Featured Speaker: Garrett Smith, Ph.D., Chair Department of Geography & Anthropology  
Kennesaw State University and former ARCS Scholar

*RSVP: Leslie Petter 835 Davis Drive, NW Atlanta, GA 30327  
Send check for \$35 made out to ARCS Foundation*

# 2010—2012 Scholars



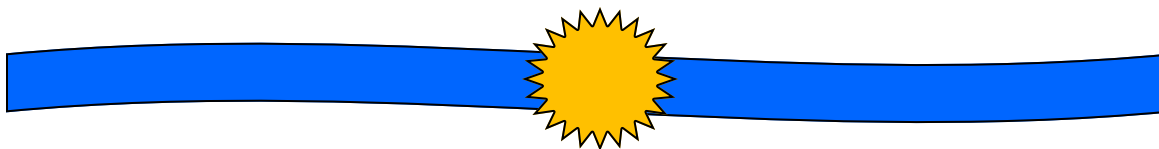
Emory University



Georgia Tech Scholars with President G.P. "Bud" Peterson and Advisors



# 2010—2012 Scholars



Morehouse Men with Advisors



University of Georgia Scholars with President Michael Adams and Advisors

## From the President's Desk



President Kay Weiss

As we celebrate twenty years of ARCS Foundation Atlanta, we look back at the history of our donors and scholars.

October 20, 1992, the first Atlanta Scholars Luncheon was held. Proudly, three \$5000 scholarships were awarded to David J. Austin at Emory, Deborah K. Beattie at Georgia Tech and Bryan Hurley Derickerson at Morehouse.

Five years later, \$55,000 was awarded to 11 scholars. We celebrated our 10th year by awarding \$165,000 to 35 scholars. This year, at our 20th Scholar Awards Luncheon, 39 scholars received \$277,500. Undergraduate awards are now \$5,000, scholars working on their Ph.D.s

receive \$7,500 and three graduate scholars receive \$10,000 Global Impact Awards.

From the beginning, the Atlanta chapter committed to fund our scholar awards through a high dues structure rather than corporate solicitations. It soon became apparent that corporate solicitation would be appropriate. Nortel Networks was our first corporate sponsor. Others followed. By 2000, BellSouth, Georgia Power, Georgia Pacific, Oracle, and Siemens had joined. This year, corporate sponsors included Printpack, Inc., Siemens Industry, Inc., Turner Enterprises, UPS Foundation, The Ritz-Carlton, Atlanta and KSi/Structural Engineers.

Corporate sponsorships were augmented by family foundation donations. In 1998, the Imlay, Zeist and Graves Foundations were donors. Within two years, the Kuse, Donnell and Hansen Foundations had joined. Today, family foundation donors include Cooley Family Foundation, Joachim Herz Stiftung, Joseph G. and Inez Crawford Burtchall Foundation, Inc., The Sartain Lanier Family Foundation, Inc., Charles & Catherine B. Rice

Foundation, Harry and Caroline Gilham Foundation and The Martha and Wilton Looney Foundation

Additionally, there are members and other individuals who give scholar awards. In 2000, the Atlanta Chapter Century Circle was formed. These gifts provide the ARCS Century Awards

Our Atlanta Chapter scholars appreciate their awards. Providing the scholars with discretionary funds has enabled them to purchase needed equipment, travel for research and attend national and international conferences. As Katherine Verbist, an ARCS Century Scholar from UGA explained, "What an award like this does is remove a great deal of outside pressure and ensure that I will finish my time as a student on a strong note, focused and motivated. It is hard to express how grateful I am for that opportunity. You all have my profoundest gratitude."

How fortunate we are to be involved in ARCS Foundation Atlanta Chapter. Thanks to our members, donors and scholars for your interest and support.

Kay

~We extend our sympathy to Susie Deyo and her family on the loss of her father Everett LeRoy Emery, Jr. on~  
December 25



## Announcing 20<sup>th</sup> Anniversary Fundraising Goals

This fiscal year marks the 20<sup>th</sup> Anniversary of the founding of the ARCS Foundation Atlanta Chapter. To set the stage for the next 20 years, the Funds Development Committee announces an ambitious fundraising goal of \$300,000 to expand scholar support and enhance ARCS Foundation's reputation. Achieving this goal will take the involvement of all members by contributing directly or introducing us to businesses, foundations and personal contacts that could support the ARCS Foundation mission.

Last year, 49 members donated beyond their dues. In 2012, we hope to increase that number by at least 20%. Seventeen members or their foundations donated enough to have a named scholarship. We want to increase this number to 20.

Should you need a reason to increase your support, here are a few good ones.

- The U.S. needs scientists more than ever. The National Science Foundation reports that the number of doctorates awarded in science and engineering dipped slightly in 2010 from 2009 after years of growth.
- Our academic institutions need us. ARCS Scholar Awards help our four Georgia institutions attract and keep the brightest and the best. Dr. David Lee, VP for Research at UGA, writes: "The ARCS Scholars Program has been invaluable in helping UGA elevate the stature of its life science graduate programs ..."
- Our support is invaluable to scholars. As Dr. Franklin West, an ARCS Foundation Scholar and UGA faculty member, says: "The support I received from ARCS Foundation made a definite and long-lasting impact on my career and desire to be a scientist."
- Our gifts can help the dismal economy. According to Dr. Berrien Moore, the 2011 scholar's luncheon speaker, what we do to support science and technology scholars can stimulate inventions and discoveries that will result in new businesses and jobs.
- Scholar awards make our brilliant scholars really, really happy!
- Helping these incredible scholars makes us feel really, really good!

When you receive your annual dues notice and request for additional support, please go that extra step. Named scholar awards are \$5,000 for the undergraduate scholars and \$7,500 for the graduate scholars. Donors of \$3,750 to \$4,999 are co-named with ARCS Century or ARCS Membership awards. The Century Circle is made up of members who contribute \$1,000 to \$2,999. Those making other donations are included in the Friends of ARCS Foundation group.

Please help. The scholars will love you for it! And, so will the Funds Development Committee!

Contributed by Linda Kay McGowan, VP for Funds Development

### Atlanta Chapter Continues to Build Endowment



The Endowment Series "Sold Out" for the private viewing of the extraordinary art collection of Sue and John Wieland at the Wieland warehouse, resulting in a \$2,000 gain for the ARCS Endowment Fund. Watch for upcoming ARCS Foundation Endowment events that promise to be equally special.

Contributed by Debbie Liss



## ARC Foundation Members Get Close-Up View of UGA Vet School

On October 11, 2011, at the UGA College of Veterinary Science, Dean Sheila Allen, DVM, MS greeted a contingent of ARCS Foundation members for the first education event of the year. Dean Allen provided a brief history on the evolution of Vet Medicine and discussed strengths and specialties of the UGA Vet Program.

Next, students led small group tours of the Vet Teaching Hospital. ARCS Foundation members peered into operating rooms where surgery was in progress. Some saw a touching scene...Lakota, a Clayton Co. K-9 police dog was getting treated. Lakota and handler Officer Travis Fox were injured when their patrol car crashed rushing to a crime scene. Three of Lakota's legs were in casts. Officer Fox was gently caressing his beloved canine partner. UGA veterinarians predict that Lakota will recover from his injuries and be back on the beat soon.

Members also saw a cow and a goat in the same stall. The cow had a hole in its side, giving access to one of its four stomachs. From this hole, vets can retrieve partially digested hay which they feed to sick cows to help them digest their food. Good bacteria are then transferred from a healthy cow to a sick one. To reduce isolation in the stall, the cow was provided a companion goat. Now, if

the cow is removed from the stall for any reason, the goat bleats in distress. And, if the goat is removed, the cow's agonized bellows can be heard throughout the Hospital.

ARCS Foundation members also heard former UC Davis ARCS Scholar



Jim Moore, DVM, PhD, DACVS Prof. of Large Animal Medicine, speak about a new method for engaging young people in biomedical science. He heads a collaboration of scientists, educators, programmers, digital artists and musicians to create interactive case studies in the form of video games. According to Dr. Moore, "kids who are turned off in science class get turned back on with the educational video games." Dr. Moore briefly previewed games to teach filtration and osmosis and vivid-

ly demonstrated a creative way to teach science to the next generation.

Fred Quinn, MS, PhD followed this presentation by talking about Zoonotic Infectious Disease Research, which means research into diseases that humans catch from animals and visa versa. Dr. Quinn runs an operation that includes basic research in parasitic, viral and bacterial zoonotic emerging infectious diseases; drug, vaccine, and diagnostics discovery; and, bio/agro defense against terrorism. He recalled the time of the Anthrax attacks, noting that the actual diagnosis was done in his lab because the CDC had shut down its Anthrax program.

Dean Allen wrapped up the afternoon program with a Q & A session. Members left with an expanded understanding and appreciation of the vast enterprise of veterinary research and medicine at UGA. Much appreciation goes to Penny Seawell and Sara Jean Burke for planning an enlightening ARCS Foundation field trip.

Contributed by  
Clare Whitfield  
Newsletter Correspondent

Pictured: : Penny Seawell, Dean Sheila Allen, Dr. Harry Dickerson, Dr. Harry Dailey, Kay Weiss and Dr. Fred Quinn



?

### Attrition Rates Too High

Studies have found that roughly 40 percent of students planning engineering and science majors end up switching to other subjects or failing to get any degree. That increases to as much as 60 percent when pre-medical students, who typically have the strongest SAT scores and high school science preparation, are included, according to new data from the University of California at Los Angeles. That is twice the combined attrition rate of all other majors.

Source: New York Times 11/04/11

## ARCS Foundation Members Support 2011 HeLa Women's Health Conference

As a result of our 2010 Book Club selection of "The Immortal Life of Henrietta Lacks" and trip to Morehouse College of Medicine for a discussion of the HeLa Project, several ARCS Foundation members made donations to Dr. Raymond Pattillo's annual HeLa Conference. It was a well-organized scientific conference with superb speakers on the subject of Stem Cell Therapy. Members of Henrietta Lack's family were there to be recognized and honored.

The keynote address was given by Joanne Kurtzberg MD from Duke University, who spoke on "Umbilical Cord Blood Stem Cells: A Bright Future in Cancer, Metabolic Disorders, Genetic Defects, and Cerebral Palsy." Dr. Kurtzberg is a pioneer in cord blood transfusions. She noted that blood taken from the umbilical cord at

birth is being used successfully for transfusions to save the lives of children born with genetic metabolic disorders. The stem cells in the cord blood are able to replace or repair the sick infant's defective blood cells. Cord blood transfusions are also effective in mitigating cerebral palsy and treating infant cancer.

Another fascinating presentation was made by Nicholas Boulis, MD of Emory University who is a pioneer in transfusing embryonic stem cells to repair spinal cord injuries and to treat ALS. His talk enumerated all of the challenges and hurdles he and his colleagues face in developing this exciting new technology.

A third talk was given by Steve Stice, PhD, director of the UGA Regenerative Bioscience Center. His work

centers on discovering what genes are important in turning pluripotent stem cells into heart cells, nerve cells and others. He also heads a study to create putty that could be injected into broken bones to cause instant healing so that injured soldiers could get up and walk out of the battlefield. Right now he's trying it out on mice and sheep.

By attending this conference, I gained a renewed appreciation for the profound results made possible by the legacy of Henrietta Lacks. She is, indeed, immortal.

Contributed by  
Clare Whitfield  
Newsletter Correspondent

## Mark your Calendars!

### GT Professor Directs Novel Approach to Ovarian Cancer Research

Join ARCS Foundation members on February 16, 2012 for what promises to be an enlightening education session with John F. McDonald, Ph. D., Ovarian Cancer Institute (OCI) Chief Scientific Officer.

The OCI research strategy is to utilize private funds to seek novel and potentially more promising approaches to ovarian cancer. Lines of investigation that are validated in the trials then serve as the basis for securing more traditional federal and private funding sources.

Despite the current economic slowdown, the OCI strategy has been a success. Over the past 7 years, OCI has established the largest ovarian cancer tissue bank in the world. Over the last 5 years, the OCI research team has, generated a large number of novel and highly promising approaches to the diagnosis and treatment of ovarian cancer. These breakthroughs have been widely publicized in the worldwide press and acknowledged by the scientific community as evi-

denced by the recent award of an NIH grant to support one of our advanced projects.



For more information go to:

<http://www.medicalnewstoday.com/releases/115305.php>

[http://abclocal.go.com/kabc/story?section=news/health/your\\_health&id=8059816](http://abclocal.go.com/kabc/story?section=news/health/your_health&id=8059816)

<http://dsc.discovery.com/news/2008/07/31/nanoparticles-cancer-cell.html>

<http://www.thedailybeast.com/newsweek/2008/09/05/we-fought-cancer-and-cancer-won.html>

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\$1000 - \$2999

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