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ARCS® Atlanta Chapter Newsletter

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Upcoming Events

- May 19 Annual Meeting and Luncheon
- June 1-5 ARCS National Meeting
- June 9 Old/New Board Meeting
- Nov. 18 Scholars' Award Luncheon

Inside This Issue:

- Editorial 2
- Tech High Field Trip 4
- New Members 5
- Scholars Speak 6

Do Our Primate Cousins Hold Key to Our Future? ARCS Atlanta Members Get Insiders' Views

Members of the ARCS Atlanta chapter had two recent opportunities to learn about the non-human primate research going on in their own backyard. In February, interested members read *The Age of Empathy*, written by Frans de Waal, PhD and participated in a discussion of the book led by Dr. de Waal at Yerkes National Primate Research Center at the Emory University campus. Dr. de Waal is a psychology professor at Emory University and director of Living Links Center at the Yerkes Primate Center.

"A pioneer in primate studies, de Waal sees our better side in chimps, especially our capacity for empathy. In his research, Dr. de Waal has gathered ample evidence that our ability to identify with another's distress -- a catalyst for compassion and charity -- has deep roots in the origin of our species. It is a view independently reinforced by recent biomedical studies showing that our brains are built to feel another's pain," says Robert Lee Hotz, *The Wall Street Journal*, in his review of *The Age of Empathy*.

"Throughout the book, de Waal illustrates how behaving more like our wild mammalian cousins may just save humanity. His contention, colored by philosophical musings and fascinating anecdotes of observed emotional connections between animals, argues persuasively that humans are not greedy or belligerent because animals are; such traits are far from organic or inevitable but patently manmade," concludes the *Publishers Weekly* review.

On April 21st, ARCS Atlanta members were invited to tour the Yerkes Field Station in Lawrenceville, near Atlanta, for a rare close-up view of the animal research being conducted at that site. The ARCS group was hosted by Stuart M. Zola, PhD, director of the Yerkes National Primate Research Center, which is part of Emory University. Dr. Zola is a leading neuroscientist whose research in memory loss associated with brain injury, Alzheimer's disease and normal aging recently earned him a seven-year appointment as senior research career scientist by the U.S. Department of Veterans Affairs.



Sherry Lundeen, Dr. Zola, and Kay Weiss following presentation at Yerkes Field Station.

The Yerkes National Primate Research Center of Emory University is an international leader in biomedical and behavioral research. Research conducted at the center involving non-human primates provides a critical link between research with small laboratory animals and clinical trials with humans. The center houses nearly 3,400 non-human primates and more than 5,000 rodents between two locations at its main center on Emory's Atlanta campus and its field

Make Your Reservation

**May 19th
Annual Meeting
And Luncheon**

See Page 2

The origins of the Yerkes National Primate Research Center of Emory University can be traced to an article written by the center's founder, Robert M. Yerkes, PhD, and published in Science in 1916. In the article, Dr. Yerkes called for the establishment of a primate research institute for the systematic study of the fundamental instincts and social relations of primates. Dr. Yerkes reasoned that primates, because of their evolutionary closeness to humans, could shed the most light upon the roots of human behavior.



The rhesus macaque pictured above is Yerkes' most common nonhuman primate. It is used in biomedical research due to its ability to adapt to almost any environment. Rhesus macaques make valuable contributions to Yerkes' AIDS vaccine research program as well as research involving aging, reproductive biology, biological basis of social behavior, behavioral effects of hormone replacement therapy, biological consequences of differences in maternal care, malaria and organ transplantation.

For nearly eight decades, the Yerkes Research Center has been dedicated to advancing scientific understanding of primate biology, behavior, veterinary care and conservation, and to improving human health and well-being. Today, the center, as one of only eight National Institutes of Health-funded national primate research centers, provides specialized scientific resources, expertise and training opportunities.

Recognized as a multidisciplinary research institute, the Yerkes Research Center is making landmark discoveries in the fields of

microbiology and immunology, neuroscience, psychobiology and sensory-motor systems. Research programs are seeking ways to: develop vaccines for infectious and noninfectious diseases; treat cocaine addiction; interpret brain activity through imaging; increase understanding of progressive illnesses such as Parkinson's and Alzheimer's; unlock the secrets of memory; determine behavioral effects of hormone replacement therapy; address vision disorders; and advance knowledge about the evolutionary links between biology and behavior.

ARCS Atlanta members enjoyed a first hand view of many of the socialization events and species-specific behaviors during their tour of the field station, including its labs and habitats. They also had lunch and an informative discussion with Dr. Zola.



Harald Hansen and Larry Klamon at Yerkes Field Station.

Make Your Reservation Today for Important May 19th Meeting

Don't miss the ARCS Atlanta General Membership Meeting and Luncheon on Wednesday, May 19th at 10 a.m. at the Chastain Horse Park. Leslie McLeod has planned a wonderful year-end event featuring Dr. David Lee, vice president of research at the University of Georgia, as our guest speaker.

Dr. Lee will be discussing the role of UGA and Georgia Tech in enhancing US competitiveness in the STEM disciplines. He will also discuss the role of all American re-

search universities in this effort.

The luncheon at the lovely Chastain Horse Park venue (4371 Powers Ferry Road) is a celebration of our accomplishments for the year as well as a time to gear up for things to come! Make your reservation today by sending a check for \$40 to Gracia Conn, 238 15th St. N.E., #17, Atlanta, GA 30309.

See you on Wednesday, May 19th at 10 a.m.

Successful Tomorrows Depend on Investing in our Youth Today

By Sherry Lundeen

President, ARCS, Atlanta Chapter

As Written in the Atlanta Journal Constitution

Today Americans face an economic crisis as well as a talent crisis. It is estimated that 90 percent of the world's scientists and engineers will live in Asia by the end of this year. In 2005, American colleges graduated 70,000 engineers, compared to China's 600,000 and India's 350,000. Approximately 50 percent of the American science and engineering workforce will be retiring within the next 20 years. If we are not fostering the talent we need to be leaders in innovation, our economic situation will become even more dire.

ARCS (Achievement Rewards for College Scientists) is one organization dedicated to fostering the success of future scientists, engineers and research physicians. Since 1958, the all-volunteer group of women has conferred 10,500 scholar awards totaling over \$71 million to academically outstanding U.S. citizens at 48 universities and colleges.

Since 1992, the ARCS Atlanta Chapter has awarded over \$2.4 million to 462 scholars at Emory, Georgia Tech, Morehouse and UGA. These remarkable students are working to find cures for Alzheimer's, causes of autism and successful treatments for diabetes, senility and sickle cell anemia.

We are proud of the contribution ARCS is making. But know that these future Ph.D.s did not become scientists at age 30. Their love of math, computing and science was most likely stimulated much earlier, with encouragement from teachers and parents. Recently, our ARCS chapter visited Tech High, Atlanta Public Schools' Charter School dedicated to teaching math, science and technology to high school students. Tech High, formed in 2004 by a group of concerned CEOs from Atlanta's technology community, is open to any City of Atlanta youngster (9th to 12th grade) willing to undertake the rigors of its curricula. Tech High has now graduated 2 classes and has an enrollment of over 235 students.

Tech High is building a strong track record. The graduation rate is 97%. The Georgia graduation rate is 79%. Moreover, 76% of graduating students are accepted to institutes of higher learning. Of note, Tech High graduates have earned full scholarships to Notre Dame, Emory and Wooster College, to name a few successes.

However, the story is not totally rosy. Newly enrolled students attending Tech High are often ill-prepared to meet the challenges, mainly because of low reading and literacy skills. According to Tech High principal, Elisa Falco, "We first invest in each student to make sure he or she has the basic building blocks to be successful. This takes extraordinary effort on the part of our faculty, the students and their parents."

You may be envisioning an enriched state-of-the-art campus for our future problem solvers, but you have the wrong idea. Tech High students, many commuting 2 hours by MARTA, call an abandoned elementary school on Memorial Drive their High School. "It would really be nice to have labs, an assembly hall and practice field, but it is a small sacrifice to be able to come here and learn," lamented one young student guiding our tour.

ARCS and others will continue to provide support to college scholars and future innovators, but the entire Atlanta community should step up to the challenge and support our young students at Tech High and other public schools. What can we do? Learn about Tech High School (www.techhighschool.org), take a tour, volunteer, offer internships for students and faculty, donate resources and lobby your school board members for support. The ways we can help are countless. It is critical for us to invest in our youth today, so America can remain strong and continue to be leaders in innovation and overcome the challenges ahead.

"Since 1992, the ARCS Atlanta Chapter has awarded over \$2.4 million to 462 scholars at Emory, Georgia Tech, Morehouse and UGA."

Tech High Offers Students More Options for Science & Math Studies

To explore what we are doing in Atlanta to prepare young people to be future innovators, ARCS members and spouses visited Tech High, Atlanta Public Schools' Charter School dedicated to teaching of math, science and technology to high school students on January 12, 2010. Tech High, formed in 2004 by a group of concerned CEOs from Atlanta's technology community, is open to any City of Atlanta youngster (9th to 12th grade) willing to undertake the rigors of its curricula. Tech High has now graduated 2 classes and has an enrollment of over 235 students.

We learned much about Tech High during our visit. Don Chapman, Chairman of the Tech High Foundation, briefed us on the school's history, progress and current challenges. Principal Elisa Falco told us that students enrolling at Tech High are often ill-prepared to meet the challenges, mainly because of low reading and literacy skills. According to Ms. Falco, "We first invest in each student who comes to our school to make sure he or she has the



Elisa Falco, Tech High Principal, talks to group before tour.

basic building blocks to be successful. This takes extraordinary effort on the part of our faculty, the students and their parents."

Enthusiastic and articulate students led us on a tour of the facility. Tech High is housed in a brightly painted, but dilapidated, abandoned grade school in need of labs, technology and other amenities we would expect in a modern high school. In classrooms visited, we saw bright youngsters and ani-

mated teachers actively involved in discussion and exploration of ideas and concepts.

As a follow-on to our visit, ARCS made a small contribution to the Tech High Foundation for use in science or computing education. Many who attended the session are interested in exploring ways we can continue to support the school. Look for more information on this later in the year.



Tech High students entertain ARCS group during campus visit.



Ginny Plummer, Mary Alice Isele, High Tech Foundation Chairman Don Chapman, and Sherry Lundeen during visit to school.

Mark Your Calendars Now For Upcoming Chapter Events

**May 19 Annual Meeting
and Luncheon**

**June 9 Old/New Board
Meeting**

**Nov. 18 Scholars' Award
Luncheon**

ARCS Atlanta 2010 New Members



*Standing: Karen Young, Jenny Cannon, Sally McDaniel, Sara Jean Burke, Beth Finnerty
Seated: Lee Doyle, Yetty Arp, Leslie Petter*

Mark Your Calendars for a Capital Celebration: National ARCS Meeting on June 1-5 in Washington, DC

The National Committee and Metropolitan Washington Chapter Local Organizers are on a roll! The 2010 NAM plans are exploding with great events and you DON'T want to miss it. For the first time ever, there will be visits on Capital Hill to introduce our representatives to our wonderful Foundation. The days are full of exciting events such as tours to the Museum of Natural History and the Hillwood Museum.

The meetings will be in the very beautiful Cosmos Club on Embassy Row. Evening receptions and dinners include the Greek Ambassador's Residence, the Supreme Court and the Fairfax Hotel. In addition to tours on Thursday, there will be two separate Workshops on Membership Development and Non-profits in Education-Challenges and Success Stories. Also on Thursday, the ARCS Lights will be honored at lunch at the Cosmos Club – Dr. Jamie Diorio, ARCS scholar, will address the group.

The Friday morning Panel Discussion on "Climate Change" is being moderated by Berrien Moore, the Executive Director of climate Central, and includes three local experts on many aspects of this issue.

The Saturday morning business meeting will be followed by an exciting brunch at the Cosmos Club. Mark your calendars and plan to BE THERE! Full details and the registration package have been emailed to you. See you there!

Scholars Speak: What ARCS Awards Meant to Them

Undergraduate research at Morehouse---

My current research is finger print recognition and identification via wavelets. The funding has provided me the opportunity to purchase a new computer and expensive software that I normally would not have been able to buy. I am honored and privileged to be selected as an ARCS student; these funds have assisted me in getting experience in research which has made me very competitive for graduate school. ([Warren Chancellor, Morehouse](#)).

I supplemented my work with the purchase of a laptop and a drawing tablet. With these items, I can search for journal articles, analyze data, and prepare my presentations. Having these materials will help move my research forward, a step in my path to a career in science. ([Kenneth Lyons, Morehouse](#))

Doctoral Students: Working, research and conference travel....

I have been an ARCS scholar for two years now and found it to be a valuable asset in my education. My research looks at the role dopamine and norepinephrine play in regulating sleep maintenance, and the ways the neurotransmitters impact medications that treat sleep disorders. Using ARCS funds I have purchased a laptop computer that allows me to manage my data from both the lab and home. It has been important to me to attend scientific meetings so that I am able to interact with experts in my field and stay aware of recent and exciting research. I am honored to be a recipient of the pres-

tigious ARCS Award. ([Heather Mitchell, Emory University](#))

I am thankful for the support of ARCS over the last two years. It has been increasingly difficult to cover my basic living expenses. I have benefited with the purchase of a parking pass. It may seem like a small thing but it has enabled me to work longer hours in the laboratory rather than be limited by a shuttle, thus cutting my commuting time in half. Travel to the American Society of Human Genetics annual conference has broadened my current studies and allowed me to develop connections with other researchers, which is of great importance as it can be the foundation for future studies and collaboration. ([Morna Ikeda, Emory University](#))

The funds allowed me to purchase a state-of-the-art computer for analyzing brain-imaging data, thus allowing me to expedite my doctoral research by processing more data in less time. I am gratefully indebted to ARCS for providing funds to purchase this computer. ([Benjamin Austin, Georgia Institute of Technology](#))

The ARCS program has allowed me to pursue research questions that I view as critical to my Ph.D. thesis. Without this funding I would have been forced to exit my program prematurely, as research budgets tend to get tight toward the end of one's program. I am truly grateful because I am now better-prepared for a productive career in scientific research. ([Ryan Austin, Georgia Institute of Technology](#))
The ARCS Award has been a great help to my development as a scientist. As a senior graduate student,

the Award provided me with travel money to attend several scientific conferences, which is a very valuable way to present my research as well as network with other scientists. In addition, the money has aided my transportation costs to travel to another university which is needed to carry out experiments vital to my dissertation research. ([Joe Sabatino, Emory University](#))

Seeking jobs, beyond the money and giving back to ARCS....

As my doctoral studies are winding down, the ARCS funding has provided much appreciated financial security. The security has afforded me a more extensive and thorough job search by removing financial pressures associated with the conclusion of my research assistantship and graduation. Hopefully, the job will prove to be the beginning of a rewarding career in research. ([Jonathan Clausen, Georgia Tech](#))

This academic year has been a challenging and exciting one. I hope to defend my thesis in the upcoming months. I have one article co-authored by Professors George Nemhauser and Martin Savelsbergh, under review. I have chaired the School of Industrial and Systems Engineering's Graduate Student Advisory Committee and moderated an Academic Job Seminar. I am pursuing a tenure-track position in academia and have had several interviews at top universities. I am constantly reminded of how fortunate I am to have the support of the ARCS Foundation to fully focus on my research. Please accept my sincere

thanks. (Alejandro Toriello, Georgia Tech)

I have put my ARCS Award into savings. Soon, I will be transitioning from my chemistry Ph.D. research into a cell biology post-doctoral position at Stanford. Due to the generous Award from the Atlanta chapter of ARCS, this transition will be a relatively stress-free transition where I can focus on my career development. (Seth Childers, Emory University)

Being given the chance to be an ARCS scholar has been invaluable to my graduate career, and will be to my professional career as I move forward. The ARCS Foundation is synonymous with excellence; any potential employer who sees this on a resume will immediately know what type of people the organization represents. And what it means to win this award. The money goes beyond

a simple cash prize. For me, it provided funding to attend a conference that is crucial to my professional development. No one is sure what the future has in store, but as an ARCS Scholar I am confident that I will have a leg-up in whatever endeavors I choose to pursue. Thank you for that.

(Aaron Thornton, Emory University)

Receiving the ARCS Award has made a huge difference in my graduate school experience. Without the Award, the graduate studies would be very tough on me financially. The economic situation has caused additional stress on the research budgets. The Award has allowed me to purchase books, reports, and theses that are beneficial to my research that I would not have otherwise been able to obtain. I have also been able to attend conferences I would not have been able to attend. I thank all the sponsors and look forward to the day when I am in a position to reciprocate the generosity. (Jonathan Hurff, Georgia Tech)

Tampa Bay Granted Charter at Winter National Meeting

Sherry, Janie Wilson, Debbie Liss and Ronnie Martin attended the winter national board meeting held in Marina Del Rey. Tampa Bay was granted a charter and becomes the 17th chapter to join the ARCS Foundation, Inc. New president Karen Krymski says Tampa Bay begins with 58 members and will support the College of Marine Science at the University of South Florida and the Cancer Biology Ph.D. Program, the Moffitt Cancer Center, at the University of South Florida.

In accordance with the Long Range Plan for ARCS National a Science & Technology Advisory Council has been formed. The council, consisting of non-ARCS members who are experts in the science community, will assist National to locate the hot spots for new chapter development; provide guidance regarding programs/departments ARCS should support; and, ways to expand and enhance ARCS' visibility and national presence especially with potential donors and with relevant policy makers. Atlanta has two representatives on the Council from the Georgia Institute of Technology—Rich DeMillo, Distinguished Professor College of Computing and David Spencer Professor of Practice Aerospace Engineering.



Achievement Rewards for College Scientists

ARCS Atlanta Chapter

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Former ARCS Light Representatives from Atlanta Chapter Gather Before January Meeting



*Standing: Kitty Hawks, Janie Wilson, Kay Weiss, Cecy Jones
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