



# ARChiveS

## ARCS® Foundation Atlanta Chapter

Volume No. XVIII Issue I

Summer 2016

### Achievement Rewards for College Scientists

ARCS® Foundation advances science and technology in the United States by providing financial awards to academically outstanding U.S. citizens studying to complete degrees in science, engineering and medical research.

### Upcoming Events

New Member Orientation  
Tuesday, September 13<sup>th</sup> Sally Hinkle - 5315 North Powers Ferry Road, NW

Fall Cocktail Party  
Sunday, September 25<sup>th</sup>  
Leslie and Skip Peter  
835 Davis Drive, NW  
6 PM to 9 PM.

Educational Event Georgia Tech Tuesday,  
October 18<sup>th</sup>

23<sup>rd</sup> Annual Scholar Awards Luncheon  
Thurs, Nov 17<sup>th</sup> 11:15 am  
Ritz-Carlton Atlanta.

General Membership Meeting and Luncheon  
Wednesday, January 18<sup>th</sup>,  
10:00 AM TBA

Jubilee, our 25<sup>th</sup> Anniversary Celebration Sunday, April 23<sup>rd</sup>  
Piedmont Driving Club.

Spring Annual Meeting and Luncheon Wed, May 10<sup>th</sup>

### Inside this issue:

President's Desk	2
Fall Education Event	3
Charlottesville Retreat	4
Annual Meeting and Luncheon	6
Upcoming Events	8



## *Save the Date*

ARCS® FOUNDATION ATLANTA CELEBRATES

OUR 25<sup>TH</sup> ANNIVERSARY

## *Jubilee*

SUNDAY, APRIL 23, 2017

6:00 PM

PIEDMONT DRIVING CLUB



INVITATION TO FOLLOW



## From the President's Desk



As I begin my term as President of ARCS Foundation Atlanta, I would like to thank outgoing President Jane Dolinger for her outstanding leadership over the last two years. Jane has been my mentor over the last year, preparing me to serve our chapter during my own term. I am pleased that Jane will remain involved next year as Chair of the Nominating Committee.

I want to thank all of the outgoing board members for their hard work. Your dedication to our chapter and its mission is critical to our success. I would also like to welcome the 2016-17 Board of Directors. I look forward to working with you. Please know that my door will always be open – feel free to share your ideas on how we can continue and grow our achievements.

Our chapter had a busy and successful spring. During our retreat in Charlottesville, we saw scientists and engineers at work making exciting discoveries and advancements in biomedical engineering. In keeping with Jefferson's ideals of the liberal arts, we also learned about the storied architecture and history of the Charlottesville area. Read the article by the Organizers, Cathey Millichap and Barbara Williams, on page \*4 for more details .

The culminating event of the season was the Annual Meeting and Luncheon, during which four of our scholars discussed their research: Anastasia Bobilev of the University of Georgia, who is studying the genetics of the neurodevelopmental disorder aniridia; Kerri Coon of the University of Georgia who is identifying gut bacteria in mosquitoes as a target for disease control; Jason Frieman of Georgia Tech, who is testing innovations in next-generation space travel; and Jessica Petree of Emory who is designing a nanomachine to edit RNA and designing an asthma drug that reduces inflammatory molecules in the lungs. Hearing our scholars share their work was an interesting and uplifting experience.

We have a very exciting year ahead of us. Ginny Plummer and Susan Higley, Chairmen for Celebration 2017, are hard at work with their committee members planning our 25<sup>th</sup> Anniversary events. Stay tuned as the year unfolds. Our celebratory year will kick off with the Fall Cocktail Party at the home of Leslie and Skip Petter on September 25<sup>th</sup> and an educational event at Georgia Tech on October 18<sup>th</sup> (more details on page 1).

It is my privilege to work with such a dedicated and enthusiastic group of women who work diligently to support to the best and brightest scientists in their work.

Sara Jean

**2016 Fall Education Event Highlights  
ARCS Foundation Atlanta's 25th Anniversary  
October 18th from 11:00—2:00 pm**



Georgia Institute of Technology's new Engineered Biosystems Building will be the site for our fall education event on October 18<sup>th</sup>.

The University has graciously offered to host the program and lunch from 11:00 am – 2:00 pm.

Along with an outstanding speaker and student presentations, special plans are underway to acknowledge our chapter's 25<sup>th</sup> anniversary.

We hope you will plan to attend this meaningful occasion.

Please watch for an email invitation.

## ARCS Retreat to Charlottesville, Virginia April 20—24, 2016

Cathey Millichap and Barbara Williams

ARCS Atlanta Chapter members and their spouses enjoyed a fascinating retreat to Charlottesville, Virginia, April 20 -24, 2016. On Wednesday, April 20<sup>th</sup>, we started our retreat with a golf outing for several of our participants at the award-winning Birdwood golf course which is owned by the University of Virginia. That evening our wonderful group kicked off the weekend with a Cocktail Reception in the “**Jefferson Room**” at the **Farmington Country Club** followed by a delicious dinner in the main dining room.

On Thursday we started the day with a tour of the “**Lawn**” at the **University of Virginia**. The Lawn, a part of Thomas Jefferson’s **Academic Village**, is a large, terraced grassy court at the historic center of Jefferson’s academic community. The Lawn and its surrounding buildings, designed by Jefferson, demonstrate Jefferson’s mastery of Palladian and Neoclassical architecture. We ate lunch at the **Colonnade Club**, which was the first structure in Jefferson’s Academic Village. The Club is housed in Pavilion VII, the oldest building on the Lawn.



The cornerstone was laid on October 6, 1817, by President James Monroe during a ceremony that ex-president Thomas Jefferson and James

Madison attended. After lunch we headed to the **McCormick Observatory** for a tour by Dr. Ed Murphy, Department of Astronomy.

We were fortunate to have two delightful ARCS Scholars from the University of Virginia, Dom Pesce and Trey Wenger, to lecture us on “black holes”, talk about the history of the telescope and show us the structure’s revolving hemispherical dome and mechanical system. We finished the day by traveling to **Barboursville Vineyards** for a wine tasting followed by a lovely dinner at the **Palladio Restaurant**.



Friday, was “**Science Day.**” We visited the **University Medical Center’s “Medical Simulation Center”** in the new Claude Moore Medical Education Building. Working synergistically with other education tools, the Medical Simulation Center enhances the collaborative learning models for the medical students. The incorporation of this technology across the entire medical education process highlights the high priority of clinical performance education at the University.

We ate lunch at the beautiful Inn at Darden, on the grounds of the **Darden Business School** at the University. Following lunch, we headed to the **Center for Applied Biomechanics.**



This is the largest university-based injury biomechanics facility in the world. The mission of the center is to improve quality of life through the mitigation and prevention of injury, made possible by better understanding the response to the human body to an automobile in an accident.

This has resulted in improved automobile designs, seat belts, air bags, child safety seats, helmet designs that have contributed to reduction of injuries and saved countless lives. Dr. Mark Sochor, Medical Director of the Center, lead the tour and everyone was impressed by the Center’s research. We ended our day at **Morven**, the estate given to the university by philanthropist John W. Kluge. The 7,379 acre gift, valued in excess of \$45 million, doubled the University’s land holdings. The rain did not stop us from looking and marveling at the beautiful gardens followed by a catered dinner in The Meeting Barn.

Saturday was the day devoted to our “**Founding Fathers.**” Our group drove by **Ash Lawn- Highlands**, the home of the fifth U.S president, James Monroe, which is owned by the College of William and Mary, Monroe’s alma mater. We then went on to **Monticello, home to Thomas Jefferson**, and enjoyed a private, behind the scenes guided tour of the mansion. Monticello took 40 years to design and build and is his masterpiece.

We followed up our tour with a box lunch in **The Woodland Gardens** accompanied by a lecture from a “Jefferson Scholar,” Charles Morrill on “**Jefferson and Science,**” which ended up with a question and answer session. After lunch we headed out to the beautiful Gardens for a tour by the Director and head of Gardens and Grounds at Monticello, Gabriel Rausse.



## Annual Meeting and Luncheon

ARCS Foundation Atlanta Chapter wrapped up its year by holding its annual meeting and luncheon on May 11 at the Piedmont Driving Club. Following Board Member reports and the introduction of the Board of Directors Slate for 2016-2017, Chapter President Jane Dolinger concluded the business portion of the meeting by turning the gavel over to incoming President Sara Jean Burke. Atlanta Chapter members and guests applauded the success of Jane's presidency which had two remarkable years of fundraising. In the Fall of 2015, 48 scholars received awards totaling \$345,000 and this Fall, 48 scholars will receive awards totaling \$355,000. Following this well-deserved recognition, members and guests enjoyed chatting over a lovely lunch until the highlight of the gathering: a panel discussion with four current ARCS Scholars.

Anastasia Bobilev was happy to announce that she had completed her PhD at the University of Georgia 48 hours prior to the luncheon and was preparing to move to Texas for a post doc position. The focus of her graduate research was a genetic neurodevelopmental disorder called aniridia, which is caused by mutations in the PAX6 gene. Aniridia is a congenital disorder that is diagnosed by a lack of iris. People with aniridia have underdevelopment of brain structures such as the major connections between the left and right side of the brain, though how these changes translate to cognitive function are not well understood. Anastasia has examined changes in molecular genetics and auditory processing measured with neuroimaging, as well as differences in brain structure with neuroimaging in the mouse model of this disorder. Collectively, this integrative approach has shed light on how molecular mutations translate to global changes in brain structure and function that can inform clinical therapies.

Kerri Lynn Coon, also from the University of Georgia, described her research involving mosquitoes, important insects because several species vector disease-causing organisms to humans and other animals. One approach to  
(continued page 7)



## Annual Meeting and Luncheon Continued

prevent the spread of these diseases (including Zika) is to control mosquito populations, either by disrupting mosquito development or altering reproduction in the field. Kerri's work identifies the gut bacteria associated with mosquitoes as a potential target for mosquito (and disease) control.

Jason Frieman, from Georgia Tech, eased the audience into the subject of rocket science by first talking about the popular movie "The Martian," which is the harrowing tale of one of the first manned missions to Mars. In order to actually achieve these bold next steps in space, we will need to develop the next generation of super-efficient electric rockets. Jason's research focuses on understanding how to properly design the facilities needed to perform ground testing of these rockets and quantifying how different aspects of these ground test facilities might change the rocket performance as compared to what would happen in space.

## Pictures from the ARCS Retreat to Charlottesville





## Upcoming Events of ARCS Atlanta 25th Anniversary Year

PO Box 52124  
Atlanta, Georgia 30355

**Newsletter**

Molly Eskew  
Editor

Leslie Petter  
Editor

Marie Stafford  
Publisher



**2016—2017 OFFICERS**

Sara Jean Burke  
*President*

Jane Dolinger  
*Past President*

Frances Swensson  
*VP for Administration*

Lisa Bankoff  
*VP for Finance/Treasurer*

Sally Hinkle  
*VP for Membership*

Elaine Davis  
*VP for University Relations*

Lee Doyle  
*VP for Funds Development*

Pat Leake  
*VP for Communications*

Elizabeth Martin & Missy McClatchey  
*Co-VPs for Education/Events*

Regina Olchowski & Clare Whitfield  
*Recording Secretary*

ARCS® Foundation, Inc.  
a 501(c)3 non-profit organization,  
Tax ID 58-2004368  
ARCS is Registered in the  
US Patent & Trademark Office

*Contributions in Memory,  
Honor or Celebration of  
someone special or an  
occasion may be made to  
ARCS Foundation Atlanta's  
Endowment Fund.  
Send to:*

*ARCS Foundation Atlanta  
Attention: Treasurer  
PO Box 52124  
Atlanta, GA 30355*

**New Member Orientation Tuesday, September 13<sup>th</sup>**

Sally Hinkle - 5315 North Powers Ferry Road, NW. 30327.

**Fall Cocktail Party**

Sunday, September 25<sup>th</sup> from 6 PM to 9 PM.

Leslie and Skip Petter - 835 Davis Drive, NW

**Educational Event at Georgia Tech**

Tuesday, October 18<sup>th</sup>

**23<sup>rd</sup> Annual Scholar Awards Luncheon**

Thursday, November 17<sup>th</sup>, 11:15 am at the Ritz-Carlton, Downtown Atlanta.

**General Membership Meeting and Luncheon**

Wednesday, January 18<sup>th</sup>, 10:00 AM Location to be determined.

**Education/Donor Event February 23, 2017, Morehouse College**

**Jubilee, our 25<sup>th</sup> Anniversary Celebration**

Sunday, April 23<sup>rd</sup> Piedmont Driving Club.

**Spring Annual Meeting and Luncheon Wednesday, May 10<sup>th</sup>**

