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ARCS® Foundation Atlanta Chapter

Volume No. XIX Issue III

Spring 2018

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

- June 6
Old Board/New Board Meeting
- June 21 –23
National Board Meeting in Minneapolis
- September 5
Board Meeting
- September 12
New Member Orientation
- September 30
Fall Cocktail Party
- October (date TBD)
Educational Event
- November 15
Scholar Awards Luncheon

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ARCS Foundation Atlanta Retreat to New Orleans

Regina Olchowski and Lee Doyle

Starting on our first evening with dinner at our hotel in the French Quarter, and finishing with an evening of food, drinks and entertainment at the famous Arnaud’s restaurant, our group was immersed in the culture and spirit of New Orleans. Our focus was the effect of Hurricane Katrina on this historic city, its many issues involved with water, and the efforts to rebuild the man-made elements while protecting the ecology of this important area.

On Thursday, March 22, we boarded our bus in the French Quarter and set out to learn about water science. We toured various parts of the city, informed by our expert local guide. The first major stop was the New Canal Lighthouse, maintained by the Lake Pontchartrain Basin Foundation (LPBF). The lighthouse contains exhibits concerning the history of the lighthouse, the New Orleans lakefront, the restoration of Lake Pontchartrain, and the efforts of the Save our Coast organization. Following our guided tour of the Lighthouse museum, ARCS Atlanta presented a brick as a contribution to LPBF.

Our next stop was lunch at the Southern Yacht Club, the second oldest yacht club in the United States. Our lunch speaker was Dr. Theryn Henkel, Coastal Program Director of the LPBF, speaking on wetland ecology. We finished our bus tour with a visit to the historic 9th Ward and the Musicians Village, new affordable neighborhoods to welcome home New Orleans musicians and others displaced by Katrina.



In the evening, we walked two blocks to Broussard’s for cocktails in the courtyard, a lovely sit-down dinner, and a jazz performance by Jerry Christopher’s Jazz Trio. Jerry not only entertained us with jazz music before, during and after our meal, he gave an enjoyable talk about the history of jazz in New Orleans.

Continued on page 8 and 9

From the President's Desk



Sara Jean Burke
ARCS Foundation
Atlanta Chapter President
2016-2018

Dear Chapter Members,

As the end of my presidency comes closer, I have come to a reflective mood. When I stepped into this position almost two years ago, I never dreamed that time would pass so quickly or that this job could have possibly been so rewarding. The experience of being the President of our Atlanta Chapter has been an incredible privilege, with hard work, many fun times, and amazing relationships. Thanks to all of our chapter members for your time, talent, and financial resources to support our mission and our scholars. I would especially like to thank members who served on the board and as committee members these past two years. Without your leadership, our success would not have been possible. Remember "Volunteers don't get paid because they are worthless, but because they are priceless."

Our chapter will be in good hands with our 2018-2020 president, Susan McGonigle, and her newly-elected board. I know that Susan is already making preparations for her upcoming year. Congratulations to all and may you find that your time in office is as rewarding as mine has been.

Again, thank you for your support, your service, but most of all your friendship.

Fondly,

Sara Jean

Joachim Herz Foundation Raises Annual Contribution

Kelli Keb and Suzy Wasserman, co-chairs

We are thrilled to inform our chapter that the Herz Foundation has increased their contribution to \$60,000 each year for the next three years. This will fund two Herz Scholars at Emory, Georgia Tech and University of Georgia. We received this wonderful news in April and we are so very grateful!

University Relations

Linda Kay McGowan and Elaine Davis



University of Georgia
2018 ARCS Scholars

University Relations had VERY productive and successful campus site visits with our academic partners, Emory University, Georgia Institute of Technology, Morehouse College and the University of Georgia. University Relations Vice-President, Elaine E. Davis planned the meetings for Emory University and Morehouse College, and Vice President, Linda Kay McGowan, planned the meetings for the University of Georgia and Georgia Institute of Technology. A majority of the campus site visits were in collaboration with Sara Jean Burke, President; Susan McGonigle, President-Elect; Suzy Wasserman and Kelly Keb, Funds Development Vice Presidents; and Carolyn Cooper, University Relations, Vice President-Elect.

Each meeting included a business session with staff and faculty, in addition to the presentation of the 2017-2018 scholar award allocations. In particular, we were delighted to have insightful scholar presentations, while at both the University of Georgia and Georgia Institute of Technology. A luncheon, which included the scholars, followed each of these presentations. This allowed us to join the scholars for an interesting exchange of conversation.

All of these meetings presented an opportunity for the schools to discuss plans or issues important to their individual campuses, to answer questions, and to clarify components of our site visit packets. Some of those discussions will result in adjustments in operation for the coming academic year, in addition to added support for our chapter's alumni connections.

Our members left each visit inspired by the passion and commitment shown by the scholars during their scientific presentations and we were pleased with the staff, faculty and mentor's unequivocal support and gratitude to ARCS Foundation Atlanta. Therefore, a rousing THANK YOU to our team, Sara Jean Burke, Sarah Batts, Scholars Chair, Suzy Wasserman and Kelli Keb. This year could not have been successful without each person's dedication, contributions and hard work.

May 2018 Scholar Alumni Updates

Nancy Parks Williams

Lydia Anderson, University of Georgia (2015-2017)



Lydia earned her B.S. from Emory University in Neuroscience and Behavioral Biology. She is currently a Dual DVM-Ph.D. graduate student at the University of Georgia. Since completing her Ph.D. in Infectious Diseases, she has been working towards her DVM at the College of Veterinary Medicine with an emphasis in public/corporate and translational medicine. Her clinical research interests span vaccinology, biomarker and diagnostic development, infectious disease surveillance, and viral immunology. She is particularly interested in developing platforms that improve the efficacy of vaccines for animals and

humans in order to impact the health of both species via reduced disease in one or both populations. Her long-term career goal is to use her training to help address the questions and challenges facing One Health due to emerging and zoonotic infectious diseases.

One Health is a multidisciplinary approach that recognizes the interconnection between people, animals, and their shared environment. The goal of this integrative effort is to attain optimal health for all species, as the health of each is inextricably connected to the others in the triad. There are many examples that show how the health of people is related to the health of animals and the environment. For instance, some infectious diseases can be shared between animals and people, these diseases are known as zoonotic diseases.

In April, the team put together and led by Dr. Anderson won the 1st place award and \$1000 in the sustainable agriculture category at the first Animal Health Hackathon in Georgia. Her team, Chirp Alert, invented a mobile app-based screening test for five major poultry pathogens commonly seen in backyard chicken flocks. See: <https://www.veterinarypracticenews.com/uga-hackathon-leads-to-pet-livestock-care-welfare-solutions/>

Sarah Eisenstein, University of Georgia (2007 and 2008)

Dr. Eisenstein is an Assistant Professor in the Department of Psychiatry. She uses MRI and PET neuroimaging techniques to study the roles of white matter integrity and different neurotransmitter systems in diseases of the brain. She is currently researching the role of neuroinflammation in the behavioral aspects of obesity.

Dr. Eisenstein is also interested in how genetics and dopamine and opioid signaling interact to affect reward-related behavior in obesity, drug abuse, and other neuropsychiatric disorders.



Jason Frieman, Georgia Tech (2015 - 2017)



Jason Frieman recently began work as a research electrical engineer in the Electric Propulsion Systems Branch at the NASA Glenn Research Center in Cleveland, where he will be focusing on testing propulsion systems and rockets on the ground before they're ready for prime-time testing in space.

Jason received a B.S. with highest honors in May 2012, a M.S. in May 2014, and a Ph.D. in May 2017 all in Aerospace Engineering from the Georgia Institute of Technology. While at Georgia Tech, he was a member of Professor Mitchell Walker's High-Power Electric Propulsion Lab (HPEPL), where he performed a wide variety of electric propulsion research, including leading performance and lifetime tests of laboratory and flight-like Hall effect thrusters (HETs) and subsystem elements for industry partners and performing experiments to assess the impacts of electrical and backpressure facility effects on HETs.

Jason has earned several accolades for his research work including a National Science Foundation Graduate Research Fellowship in 2012, the Lockheed Martin Scholar Award from the Achievement Rewards for College Scientists (ARCS) Foundation from 2015 - 2017, and an honorable mention in the 2011 Barry M. Goldwater Scholarship Competition. Jason said, "I hope to be part of a NASA team that mirrors what was done with the Apollo program, but instead of going to the moon, we go to Mars."

Melinda Maris, Emory University (2006)

Award-winning teacher and scientist Melinda Maris is being recognized as one of Emory University's 40 Under Forty, according to a news release from the Emory Alumni Association.

Melinda is being honored for her progressive methods of transforming teaching and research methods across subjects. Maris, who was chosen out of over 150 applicants, was selected to be on the list for her focus on evidence-based learning, research methods and spreading this knowledge to the plethora of institutions of higher learning where she has worked.

Melinda holds a B.S. in Biology from William & Mary as well as a Ph.D. in genetics and molecular biology from Emory University. Maris was a postdoctoral fellow in genetics and molecular biology at Johns Hopkins University. She is currently working at Southern Vermont College (SVS) as the Dean of Teaching and Learning, Director of the Center of Teaching and Learning and Associate Professor of Biology. She has held faculty positions around the world, from John Hopkins University in Baltimore, Md. to Brussels, Belgium where she was an associate dean of Teaching and Learning at Vesalius College.



May 2018 Scholar Alumni Updates

Lonnie Sullivan, Morehouse College (1997)

I am about to start Residency at Duke University Hospital. I am pursuing a career in Internal Medicine with a specialty in Cardiology. I chose to pursue a career in medicine because I realized during my matriculation at Morehouse College that I not only love science, but I also love interacting with people. The ability to take what I learn in a classroom and directly apply it to the care of real life patients is rewarding in ways that almost no other profession can offer.



The most challenging part of being in medical school was time commitment. Many people warned me of how difficult the coursework would be. Personally, I have not found the work to be nearly as challenging as simply managing my time. Coursework, board exams, research, clinical responsibilities, and studying to advance my own knowledge, were all the things that I had to balance in addition to my personal life.

The easiest part of medical school was staying motivated. I always remained motivated to keep learning, pushing, and trying to better myself because I realize that people's lives will eventually be in my hands. Medical school is very different from undergrad in the sense that you are learning not to simply pass a test, but to treat patients. This is a different level of responsibility that requires a heightened level of focus and dedication.

The most valuable piece of advice that I can give to anyone trying to become a physician is **DO NOT GIVE UP!** Pre-medical undergraduate courses and the application process discourage many students.

Furthermore, you may begin to second-guess your credentials and ability to handle medical school. I was extremely close to switching my major in undergrad because the coursework was so difficult, and some people made me feel as though I was not good enough to be a Biology Major. If I would have changed majors or listened to the negative rhetoric, I wouldn't be training at one of the best medical institutions in the country today! So if you are determined to become a physician, or scientist, or whatever, please never give up because the world needs your brilliance! I also married a wonderful lady in 2017, Sydney, who has been by my side throughout Medical School.

ARCS Educational Event with Dr. Amy Moore

Robin King

The ARCS Spring Educational Event was held at the Rollins School of Public Health at Emory University on April 19, 2108. It was a gorgeous day and twenty seven ARCS members and guests enjoyed the beautiful skyline views of Atlanta from the Lawrence P. and Ann Estes Klamon Room on the 8th floor of the Claudia Nance Rollins Building, the highest point of Emory University.

Mr. Jim Curran, Dean of the Rollins School of Public Health, welcomed the group and shared a few insights into the school as well as public health.

Dr. Amy Moore was the guest speaker, educating us on her previous employer, Georgia Research Alliance (GRA) and her current employer, the Emory Brain Health Center. Dr. Moore was the Director of Research at GRA and is now the Director of Academic Programs at the Emory Brain Health Center. Dr. Moore's husband, Dr. Martin Moore, was an ARCS Award recipient from 2001-2003 at UGA.



Dr. Amy Moore

GRA is a unique public-private partnership of research universities, industry and government. It is a non-profit 501(c)(3) corporation started in 1990. The investment portfolio is funded by the state with direct investment in research and commercialization, talent and physical infrastructure. Operations are funded by the private sector for a lean staff and low overhead.

The institution is a component of Georgia's overall economic development and higher education strategy and a collaborative voice to forge public private partnerships among Georgia's research universities, business and government.

The institution propels new kinds of growth for Georgia's economy by:

- Expanding research capacity of universities
- Seeding and shaping new companies around inventions and discoveries
- Accelerating growth of the best start-ups

The Emory Brain Health Center was launched five years ago to transform patient-centered care for brain and spinal cord conditions through research and discovery. The center includes five departments – Neurology, Psychiatry and Behavioral Sciences, Neurosurgery, Rehabilitation Medicine and Sleep Medicine.

Many thanks to ARCS member Kathryn Graves for graciously hosting this informative event.

New Orleans Retreat (continued from page 1)



John and Linda Kay McGowan
at the World War II Museum

On Friday, we tried something different from previous retreats – we had “Build Your Own Day.” New Orleans is a great city for tourists! There are so many educational and entertaining activities that we wanted people to be able to choose their own activities. The various options included museums, boat trips, a swamp tour, walking tours, and the most popular one – visiting the World War II Museum. ARCS Atlanta provided the tickets to the WWII Museum, and participants were free to move at their own pace. Although most of us went to the museum, several of our members enjoyed a relaxing day with fine weather and great food.

On Friday evening, we all met up at the Leviton Live Showroom for a reception and tour of their facilities. Through the connection of one of our members, we were hosted as VIP guests to a fascinating showroom of the latest in “smart” technology by one of the leaders in the industry.

Our Saturday began with a bus tour of the city, including the French Quarter, St. Louis Cemetery #3, City Park, and, later on, the Garden District. We had lunch at Brennan’s Ralph’s on the Park, followed by dessert at the home of Virginia Weinmann, the mother-in-law of our ARCS member, Brooke Weinmann. At Ralph’s, we were mesmerized by a talk by John Graves, a lead engineer in the restoration of the levee system after Katrina, among other projects. At the Weinmann home in the Old Metairie area of the city, we were graciously entertained by Virginia and her son, Winston, with refreshments and stories of their experience with Hurricane Katrina.



Brooke and Winston Weinmann
with Virginia Weinmann (center)

In the evening, we met at Arnaud’s for cocktails and dinner. Many took advantage of a tour of their interesting Mardi Gras Museum, which occupies part of the second floor of the restaurant. Our surprise entertainment was when Pat Leake sang “Summertime” acapella; followed by a duet by Elaine Davis and John McGowan; and then, the quartet of Elaine Davis, John McGowan, Peg Cooley, and Keith Cooley. We hadn’t realized that we had such talent in our midst!

Several of our participants took advantage of New Orleans proximity to LIGO, a unique facility located about 85 miles from NOLA. LIGO is at the cutting edge of physics and astronomy. Their collaborators just won the 2017 Nobel Prize in physics for the detection of gravitational waves from merging black holes and merging neutron stars. Those interested stayed an extra night in New Orleans, and we journeyed to LIGO on Monday for a two-hour tour on our way back to Atlanta.



John Graves, a lead engineer in the restoration of the levee system after Katrina, with ARCS Atlanta member Jeanne Berry.



Jay McClellan from Leviton with ARCS Atlanta President Sara Jean Burke at the Leviton Live Showroom.



Anne Easterly, Margaret Turke and Pat Leake at the cocktail hour



Regina Olchowski and Lee Doyle, our fabulous retreat organizers.



Debbie Liss, Brooke Weinmann and Liz Troy



John McGowan and Mike Troy

ARCS Foundation All Members Conference Scientific Innovation for the Next Generation

Sara Jean Burke

Two hundred and twenty-five members of ARCS Foundation, Inc. and their guests convened in Washington, D.C. on April 25-28 for an All Members Conference. The event was held at the historic Willard InterContinental Hotel with Lockheed Martin as the presenting sponsor. Barbara Jean Comstock, Republican Party Member of the US House of Representatives for Virginia's 10th Congressional District, delivered the welcoming address at a cocktail reception on Wednesday evening at The Willard Hotel. Congresswoman Comstock is serving her second term in the House.

National President, Andi Purple, opened the conference on Thursday morning with the introduction of Dr. Keoki Jackson, Chief Technology Officer, Lockheed Martin. Dr. Jackson spoke of the industry relationship of Lockheed Martin and ARCS Foundation, Inc., and thanked our organization for its continued support of STEM education.

The session continued with Keynote Speaker, Deborah Wince-Smith. Ms. Wince-Smith is the president and CEO of the Council on Competiveness, a coalition of CEOs, university presidents, labor leaders and national laboratory directors, committed to driving U.S. productivity and prosperity. Having led the Council for sixteen years, she also serves as President of the Global Federation of Competitiveness Councils, whose creation she led. Ms. Wince-Smith has more than two decades of experience as a senior U.S. government official. She served as the first Senate-confirmed Assistant Secretary for Technology Policy in the U.S. Department of Commerce and Assistant Director for International Affairs in the Reagan White House. Ms. Wince-Smith covered topics including, but not limited to, global transformation, national security, the collaborative and shifting roles of all nations. The information was interesting and provoked thought on many levels.

A panel discussion, moderated by Dr. Shameema Sikder, entitled Future Innovations in Biomedical Science: An Interdisciplinary Perspective, was also on the Thursday morning agenda. Dr. Sikder is the founding medical director of the Wilmer Eye Institute Bethesda and an assistant professor of ophthalmology at Johns Hopkins School of Medicine. She specializes in corneal disorders and complex cataracts. Dr. Sikder is also a member of the Metro Washington ARCS Chapter. The panel discussed how biomedical science is moving forward with exciting advances and what it means for our society. She was joined by a panel of thought leaders and researchers who have direct experience with this revolutionary work from perspectives in government, academia, and industry.

Thursday afternoon, members visited one of three museums: National Museum of American History, National Geographic Museum, or the Museum of the Daughters of the American Revolution. The highlight of the day was the evening reception and dinner at the United States Supreme Court, hosted by Justice and Mrs. Anthony Kennedy. Justice Kennedy addressed the group in the chambers before a lovely seated dinner with music.

On Friday morning, a networking meeting was planned and facilitated by the chapter presidents. All members and guests were invited to round table discussions on ways to strengthen chapter effectiveness and to motivate collaboration across all chapters. This session was well-attended and the discussion was lively. Second on the agenda was a panel of past national presidents, including our own, Janie Wilson, sharing the legacy and growth of ARCS Foundation over its sixty years of advancing science in America. ARCS Light recipients were honored at a lovely luncheon on Friday. Again, museum tours including the Air and Space Museum, International Spy Museum, National Portrait Gallery, United States Botanic Garden, and National Gallery were enjoyed in the afternoon. Georgetown University and ARCS Scholar Alum, Dr. Teresa Duncan presented on the application of the polymeric gels that she developed for cleaning cultural heritage items at the National Gallery of Art.

Metro Washington ARCS celebrated their 50th Anniversary on Friday night with a lovely dinner at the Willard Hotel. The keynote speaker was their Eagle Award Recipient, Charles O. Holliday Jr., chairman of Royal Dutch Shell. It was a wonderful evening shared with old and new friends, including members, their guests, current scholars, and alumni. Congratulations to Metro Washington for 50 years of supporting scholars.

The meeting closed on Saturday morning after an ARCS Foundation Annual Business Meeting.

ARCS Atlanta Annual Meeting and Luncheon

Carolynn Cooper



Our wonderful outgoing president Sara Jean Burke turned over the gavel to incoming President Susan McGonigle. Atlanta Chapter members and guests applauded the success of Sara Jean's presidency.

The spring meeting this year was held at the Fernbank Museum of Natural History. Our guest speaker was Dr. Juana Mendenhall of the Morehouse College Chemistry Department. She is the ARCS mentor at Morehouse College as well as a distinguished researcher. Dr. Mendenhall shared her research and enlightened us on the selection process for the ARCS awards recipients and how the scholars are using their funds.

In our attempt to make this meeting a little different and more efficient, we had a box lunch during the meeting. At the end of our meeting, a staff member from Fernbank took a few moments to share their mission with us. Fernbank is very involved in science education and was delighted to host us. Those who had a little extra time took a guided walk through a portion of the Fernbank Forest.

We love to get input from members on what is working and what is not, so please let Caroline Moise and me know if you like changing the meeting format and locations or if you prefer the tried and true. We look forward to making plans for next year.



ARCS members on a stroll through Fernbank Woods after the Annual Meeting and Luncheon



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Attention: Treasurer
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Atlanta, GA 30355*

Why Give to the Endowment Fund?

Our members contribute annually to fund our scholar awards, but did you know that most don't also give to the Endowment Fund? While actively supporting our annual scholar awards is critical to ARCS success, many are missing the opportunity to also contribute to the long term success of the ARCS Atlanta Chapter.

A dollar donated today in our Endowment Fund is invested and grows over time. ARCS is then able to use the Endowment Fund earnings to support future scholar awards for years to come. This not only enables the future success of ARCS, but also creates stability and scale to further our mission.

No gift is too small! Many members choose to donate to the Endowment fund in memory of, or in honor of, another ARCS member or family member. It's a terrific way to recognize someone while supporting an organization that is meaningful to them. As an example, if each member gave \$100/year, that translates into \$15,000.

Won't you join me in making a commitment to contributing to the ARCS Atlanta Endowment Fund this year?

There are some strong supporters of the ARCS Atlanta Chapter Endowment Fund, most notably The Wilbur and Hilda Glenn Family Foundation that has generously donated \$250,000. One ARCS member has contributed for six consecutive years....thank you Liz Troy!

Members who have already donated this year:

Sara Jean Burke
Nancy Chambers
Karen Doolittle
Joanne Gross
Sharon Quaintance
Liz Troy
Louise Yeoman

ARCS Foundation Atlanta Chapter Endowment Committee Welcomes Montag & Associates

With the retirement of our investment advisor, Susan Riechel with First Foundation, the Endowment Committee took the opportunity to assess and vet local advisors. After interviewing our top six candidates, we are pleased to welcome John Montag and Brendan Wagner, with Montag & Associates. Montag & Associates brings a solid background and sound reputation in investment management, as well as a wealth of experience in working with numerous well-known endowment funds in Atlanta.