ARCS ADVANCING SCIENCE IN AMERICA

THE ANNUAL SCHOLAR AWARDS

LUNCHEON

2013



ACHIEVEMENT REWARDS FOR COLLEGE SCIENTISTS FOUNDATION, INC.

ATLANTA CHAPTER SCHOLAR AWARDS LUNCHEON 2013

ARCS® FOUNDATION MISSION STATEMENT

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.

arcsfoundation.org

ARCS® Foundation Advancing Science in America is registered in the U.S. Patent & Trademark Office.

From the President

It is with pleasure that I welcome you to the 22nd annual ARCS Foundation Atlanta Scholar Awards Luncheon. We are here to celebrate the achievements of 42 young women and men who will be receiving at total of \$300,000. Since its founding, the Atlanta chapter has awarded nearly \$3 million to more than 330 individuals. These are our country's scientists. It is you, our generous members, corporate donors, foundations and friends who are to be thanked for making this possible.

As you will learn today, our scholars are studying in multiple fields of science. They are tomorrow's leaders who will be university professors, medical doctors, computer scientists, earth scientists, engineers or life-long research scientists. The possibilities are endless. Please take the opportunity to meet a scholar at today's luncheon. Learn more about her/him. These are the leaders of tomorrow. We are honored to have them here today to celebrate their achievements.

ARCS Scholars are selected by their universities and are citizens of the United States, enrolled full time, have a grade point average of 3.5 or higher and are selected without regard to race, gender or religion. ARCS funding is used for the departments that specialize in research majoring in the natural sciences, engineering or medicine.

To our scholars, I want to leave this quote from Astronaut Ellison S. Onizuka, who was aboard the ill-fated Challenger space shuttle mission in 1986, "Your vision is not limited to what your eye can see, but by what your mind can imagine. Many things that we take for granted were considered unrealistic dreams by previous generations. If you accept these past accomplishments as commonplace, then think of the new horizons you can explore. From your vantage point, your education and imagination will carry you to places which we won't believe possible. Make your life count and the world will be a better place because you tried."

Atlanta has a vital ARCS Foundation chapter that seeks to continue its essential membership and strengthen its relationship with scholars, donors and the community at large. Thank you, Sylvia Dick and your committee, for making today's Scholar Awards Luncheon a memorable celebration.

Gracia Conn President, ARCS Foundation Atlanta Chapter November 21, 2013

ACHIEVEMENT REWARDS FOR COLLEGE SCIENTISTS FOUNDATION, INC.

ATLANTA CHAPTER 2013 SCHOLAR AWARDS LUNCHEON THE RITZ-CARLTON, ATLANTA

PROGRAM

Welcome

Gracia Conn, President ARCS Foundation Atlanta Chapter

Invocation

The Reverend Doyt L. Conn, Jr., Rector Epiphany Episcopal Church, Seattle, Washington

LUNCHEON

Introduction of Keynote Speaker

Keynote Speaker Dr. Joy Doran-Peterson

University of Georgia
Director, Professional Science Master of
Biomanufacturing and Bioprocessing
Associate Professor, Microbiology Department

Moderator

Bill Liss
Financial, Consumer and Legal Editor, WXIA-TV

Closing Remarks
Gracia Conn

ARCS® FOUNDATION HISTORY AND ACHIEVEMENTS

ARCS Foundation, Inc. is a national organization dedicated to supporting the best and brightest U.S. graduate and undergraduate scholars by providing financial awards in science, engineering and medical research.

ARCS Foundation was formed in 1958 in Los Angeles in response to Sputnik and the perceived lack of U.S. supremacy in the technology race. Since then, ARCS Foundation has provided more than 14,000 scholar awards totaling nearly \$87 million at 54 universities, and has grown to more than 1,600 members in 17 Chapters across the United States. More than \$4.3 million was awarded in academic year 2012-2013.

Much has happened in the years since ARCS Foundation was established, but some things never change:

- 100 percent of contributions go directly to fund scholars.
- Recipient schools are qualified through rigorous eligibility requirements.
- Schools select scholars based on academic achievement without regard for race, creed or gender.
- Scholars are U.S. citizens and students of high achievement in the basic sciences.
- ARCS Foundation scholar awards funds are raised and distributed locally.
- ARCS Foundation is an all-women volunteer organization.

The following observation from Dr. Richard A. DeMillo, Distinguished Professor and Director of the Center for 21st Century Universities at Georgia Institute of Technology, truly articulates the vision and the achievements of this unique and important organization:

ARCS Foundation has from its inception been dedicated to the renewal of the science-based workforce. Its success has been stunning. [....] If all of the ARCS Scholars gathered in one place, they would be in the top rank of world universities, a remarkable achievement for a small group of women whose goal was to help American scientists compete with Sputnik.

ARCS® FOUNDATION, INC. CHAPTERS

Atlanta, Georgia Illinois Denver, Colorado Honolulu, Hawaii Los Angeles, California Lubbock, Texas Metro Washington, D.C. Minnesota Northern California Orange County, California Phoenix, Arizona Pittsburgh, Pennsylvania Portland, Oregon San Diego, California Seattle, Washington Tampa Bay, Florida Utah

IN APPRECIATION

The Board of Directors of the Atlanta Chapter of ARCS Foundation extends special appreciation to the following whose time and talents contributed to the success of our annual celebration.

Coxe Curry & Associates
Jim Fitts Photography
The Fresh Market
Bill Liss, Moderator
Marguerite Peele Fine Stationery
The Ritz-Carlton, Atlanta
Mona Austin, Meetings & Special Events Manager
Kurt Schwan, Director of Catering Sales

Our Partnership Schools

Emory University, James W. Wagner, President Georgia Institute of Technology, G.P. "Bud" Peterson, President Morehouse College, John Silvanus Wilson, Jr., President University of Georgia, Jere Morehead, President

-



Dr. Joy Doran-Peterson University of Georgia

Joy Doran-Peterson is the Founding Director of UGA's Professional Science Master's Program in Biomanufacturing and Bioprocessing (MBB), where students are trained in microbiology, biochemistry, biochemical engineering, genetics, and process development. MBB students are also given a solid foundation in business aspects of the industry. Doran-Peterson was also the Founding Director of the

Biofuels, Biopower, and Biomaterials Initiative (B3i), now the Bioenergy Systems Research Institute, at UGA. She is an elected officer of the American Society for Microbiology as Divisional Group III Leader and an active member of the Society for Industrial Microbiology. Her research interests include biotechnology for biofuels and bioproducts development, including metabolic pathway engineering and directed evolution for improved biocatalysts. Her work is also inspired by nature's methods for deconstructing plant biomass in insect systems, whether it is via the animals' contributions or the activities of its microbial consortium.

Dr. Doran-Peterson received her undergraduate degree from UGA and her PhD from the Department of Microbiology and Cell Science at the University of Florida in 1994. After graduation Dr. Peterson was tenured at Central Michigan University in the Biology Department. She moved to UGA's Microbiology Department in 2002 where she is currently a tenured Associate Professor. Dr. Peterson launched the Biofuels initiative, B3i, in 2008 and she started the PSM program in Biomanufacturing with funding from the National Science Foundation in 2010. In addition to driving new program development at UGA, Dr. Peterson serves on the General Meeting Planning Committee for the American Society for Microbiology and was recently selected to serve on the D.C. White Research and Mentoring Award Committee. Dr. Peterson was selected to Chair the American Academy of Microbiology Colloquium on Training the Next Generation of Microbiologists for Bio-based Industries and was a featured speaker on the "Microbiology of the Bioeconomy" at the Microbes After Hours event at ASM headquarters in Washington, DC. She has received awards for Excellence in Teaching and for Outstanding Research and Creativity and recently shared some of her laboratory's achievements and perspectives via an invited TEDxAtlanta talk. Grants from the National Science Foundation, the US Department of Agriculture, the US Department of Energy, and private industry have helped to make her research and program contributions possible.

MONARCS®

We are proud to recognize the following donors who have contributed to the Atlanta Chapter of ARCS Foundation throughout our brief history.

Donors who have given cumulative gifts of \$100,000 or more:

ARCS Foundation Atlanta Membership

Wilbur and Hilda Glenn Family Foundation

Joachim Herz Stiftung

Donors who have given cumulative gifts of \$75,000 or more:

Marcia and John Donnell

Frannie and Bill Graves

Betsy and Harald Hansen

Siemens Industry, Inc.

The Zeist Foundation, Inc.

Donors who have given cumulative gifts of \$25,000 or more:

Kathy and Dennis Berry
Sylvia and Bruce Dick
Georgia Gulf Corporation
Harry and Caroline Gilham Foundation
Lou and Tom Glenn
Petra Herz

James R. Kuse Foundation Deborah and William Liss Sherry and John Lundeen Carol and Bob Meier Harriett and Sandy Miller

Printpack Inc. and The Gay and Erskine Love Foundation Charles & Catherine B. Rice Foundation

Synovus
Dr. and Mrs. Martin Teem
Turner Enterprises, Inc.
UPS Foundation
Kay and Buddy Weiss

2013 SCHOLAR AWARD DONORS

Galileo Circle

\$7500 and above

Madeline and Howell E. Adams, Jr.
ARCS Foundation Atlanta Membership
Joseph G. and Inez Crawford Burtchaell Foundation
Cooley Family Foundation
Cox Enterprises, Inc.
Sylvia and Bruce Dick
Marcia and John Donnell
Patsy and Jere Drummond
Shearon and Taylor Glover
In Memory of Betsy Hansen
Petra Herz
Sally and Warren Jobe
Libby and Gary Jones

Printpack Inc. and The Gay and Erskine Love Foundation
Linda T. Mauldin
Siemens Industry, Inc.
Turner Enterprises, Inc.
UPS Foundation

Einstein Circle

\$5000 - \$7499

The Erroll & Elaine Davis Charitable Giving Foundation
Genuine Parts Company
Lou and Tom Glenn
King & Spalding
The Sartain Lanier Family Foundation, Inc.
Carol and Bob Meier
Cheryl and Jerry Nix
The Ritz-Carlton, Atlanta

Madame Curie Circle

\$2500 - \$4999

Anonymous
Kathy and Dennis Berry
Ada Lee Correll
Michael and Anne Deeley Easterly
John and Mary Franklin Foundation, Inc.
Harry and Caroline Gilham Foundation
Cheryl Dabney Johnson
Deborah and William Liss
Patty and Doug Reid Family Foundation

Century Circle \$1000 - \$2499

Eliot Arnovitz Yetty and Charlie Arp Mollie Winston Barrow Anne and David Boyd Sara Jean Burke Jenny Cannon Nancy and Richard Chambers Gracia Conn Susie and Bill Deyo Jane and Steve Dolinger Connie Dotzenrod Marty Gillin Joan and Bill Goodhew Joanne and Alex Gross Louise Gunn Habif, Arogeti & Wynne, LLP Cecy Jones Robin King Ann and Larry Klamon Pat and Nolan Leake The Martha and Wilton Looney Foundation Sherry and John Lundeen Ronnie Martin Sally and Allen McDaniel Linda Kay and John McGowan Leslie McLeod Harriett Miller Regina Olchowski and Ed Potter Teed Poe Phyllis Rodbell Mary Rose Taylor Liz and Mike Troy Brooke and Winston Weinmann

Friends of ARCS Foundation

Barbara Williams

Susan Bledsoe Becky Blalock Lee Doyle Kathryn Graves Caroline Hardin Lila Hertz Ann Hill Susan McGonigle Carol Phillips Vicki Riedel Mary Snitch Anne Sterchi

ARCS® FOUNDATION, INC. ATLANTA CHAPTER PAST PRESIDENTS

Mary O'Connor, 1992-1994 Founder, Atlanta Chapter

Patsy Drummond, 1994-1995

Trudy Huger, 1995-1996

Frannie Graves, 1996-1997

Pat Leake, 1997-1998

Betsy Hansen, 1998-1999

Deborah Liss, 1999-2000

Sally Hinkle, 2000-2002

Janie Wilson, 2002-2004

Teed M. Poe, 2004-2006

Jan K. Bennett, 2006-2008

Sherry Lundeen, 2008-2010

Kay Weiss, 2010-2012

ATLANTA CHAPTER MEMBERS SERVING ON THE ARCS FOUNDATION NATIONAL BOARD

Nancy Chambers Gracia Conn Sherry Lundeen Ronnie Martin Mary Snitch Janie Wilson



JAMES W. WAGNER, PRESIDENT



If the United States is to continue to lead the world in science and technology, it must attract, train and employ its best and brightest students to become the next generation of scientistl scholars. Sometimes the country tends to lose sight of this important mission. ARCS Foundation remains one of the true and consistent friends of all fields of science, supporting and encouraging students to pursue research and teaching careers. Very few institutions address this need, so ARCS Foundation is an important, much-needed champion of science education.



DONALD STEIN, Ph.D.

Asa G. Candler Professor of Emergency Medicine Director, Brain Research Laboratory Emory School of Medicine

Rachel M. Burke Correll/ARCS Membership Award

Ph.D. Candidate, Epidemiology First Year ARCS Scholar



Rachel is an Epidemiology doctoral student and Emory Diversity Fellow focusing on infant health and nutrition. Inspired by her Latina heritage, she is particularly interested in child health in Latin American populations. After receiving her BA in Biophysics at Harvard College, she spent four years working as a management consultant with Monitor Group concentrating on the healthcare industry. In 2012, she obtained her MPH in Global Epidemiology (Emory University), where she was a Boisfeuillet Jones Scholar. She has delivered four presentations at national conferences and published two peer-reviewed articles. In her spare time, Rachel volunteers as a medical interpreter.

Caitlin Davis

Reid/ARCS Century Award

Ph.D. Candidate, Chemistry First Year ARCS Scholar



Caitlin completed a BS degree with a concentration in chemistry and mathematics from University of Michigan. Her current research uses a combination of time resolved spectroscopy and computational modeling to characterize the dynamics and mechanism of an anticancer β-hairpin peptide disrupting a membrane. Since these peptides preferentially bind and kill cancer cells, insights gained from these studies can be applied towards development of drugs for the treatment of cancer. Caitlin has published one peer-reviewed article and received the SIRE-HHMI Graduate Fellowship to develop research skill-building workshops for undergraduates in Emory's Research Partner Program. She cofounded the Emory Shotokan Karate Club.

Sarah Guagliardo

Herz Global Impact Award

Ph.D. Candidate, Biological and Biomedical Sciences
First Year ARCS Scholar



Upon earning her BS in Public Health, Sarah worked as a research assistant at the US Agency for International Development where she characterized epidemiological trends in Eastern Europe. She served as a US Peace Corps Volunteer in Honduras working in maternal and child health, nutrition, and HIV/AIDS prevention. She later earned an MPH in epidemiology from Yale, conducting her thesis on socioeconomic and environmental factors associated with dengue in the Venezuelan Andes. As a doctoral candidate at Emory, she currently resides in the Peruvian Amazon. She is fluent in Caribbean, Central American, and Amazonian dialects of Spanish.

Scott Krummey

Turner Award

Ph.D. Candidate, Biological and Biomedical Sciences First Year ARCS Scholar



Scott is currently an MD/PhD student at Emory University conducting graduate studies with Dr. Mandy Ford in the Transplant Center. He graduated magna cum laude from Colgate University as a High Honors Molecular Biology major. He was a post-baccalaureate research fellow at the NIAID for two years, where he studied a primary immunodeficiency and co-authored three publications. After completing the first two years of medical school at Emory, he is now a second-year graduate student investigating costimulation pathways of memory T cells. As a graduate student, he has given four oral presentations at national and international

meetings and is the primary author of a review article and two submitted manuscripts. His research interests center on the mechanisms by which cosignaling receptors control T cell function and identifying novel strategies to target pathological immune responses that cause autoimmunity and graft rejection. Following graduate school, he plans to complete medical school and clinical training in internal medicine or pathology and plans to start his own laboratory to investigate mechanisms of T cell cosignaling. Scott enjoys reading about colonial-era American history, running with his dog, and perfecting his homemade pizza recipe.

Benjamin Nanes

Donnell Award

Ph.D. Candidate, Biological and Biomedical Sciences First Year ARCS Scholar



Benjamin graduated summa cum laude from Washington University in Saint Louis with a major in Chemistry. He subsequently joined Emory's MD/PhD program, and is pursuing his graduate research in the Biochemistry, Cell, and Developmental Biology program in the laboratory of Dr. Andrew Kowalczyk. Benjamin's research focuses on cell-cell adhesion in vascular development and inflammatory disease and has led to two publications. Benjamin received a fellowship from the American Heart Association and a National Research Service Award from the NIH. Outside the lab, Benjamin has advocated for improving Georgia's healthcare safety net, for which he received the GDBBS Outreach/Community Service Award.

Kira Newman

ARCS Century Award

Ph.D. Candidate, Epidemiology First Year ARCS Scholar



Kira received a BA (History, Yale University), where she studied public perceptions of plague and quarantine in early modern England, and is an MD/PhD (Epidemiology) candidate. Her current and future medical research focuses on protecting individuals from norovirus ('stomach flu') infection and disease by understanding its human immune response. Among many honors, she was a 2012 Humanities, Arts, Science, and Technology Advanced Collaboratory Scholar, received competitive funding to national and international workshops on infectious disease modeling, and has three peer-reviewed publications. In her free time, Kira is an avid bicyclist and rock climber, though not at the same time.

Laura Plantinga

Jobe Award

Ph.D. Candidate, Epidemiology First Year ARCS Scholar



Laura (ScM, biostatistics) is a third-year epidemiology doctoral student at the Rollins School of Public Health. Prior to enrolling in the doctoral program, she worked as an academic researcher and earned a reputation in the field of kidney disease epidemiology, producing numerous publications and helping to establish a nationwide surveillance system for chronic kidney disease. Currently, her research is focused on the epidemiology of kidney disease in lupus. She hopes to apply her previous knowledge to advance the understanding of this devastating complication, potentially reducing associated health disparities. In her spare time, she enjoys hiking and reading.

Karen Siegel

Berry/ARCS Membership Award

Ph.D. Candidate, Biological and Biomedical Sciences First Year ARCS Scholar



Karen is a Woodruff Scholar at Laney Graduate School, received her BA in Biology and Hispanic Studies from University of Pennsylvania in 2004, and her MPH in Global Health from Yale School of Public Health in 2007. Her research focuses on macro-level policy approaches to preventing chronic diseases. She has co-authored 20 peer-reviewed articles and co-edited Sick Societies: Responding to the Global Challenge of Chronic Disease (2011). In the future she hopes to continue similar academic work, creatively extending research knowledge to healthier food and agricultural policies, while also inspiring students in public health. Outside interests include swimming and writing.

James Vickers

Cox Award

Ph.D. Candidate, Chemistry First Year ARCS Scholar



James graduated from UNF where he received awards for academics and research. He enrolled as a PhD student of Inorganic Chemistry at Emory. Under his advisor, Dr. Craig Hill, James is researching alternative fuels, specifically, water oxidation catalysis and has published seven papers. He plans to continue working in the field of alternative energy upon graduation. James is active outside the lab as a member of the ACS Georgia local section and as president of the graduate chemistry social club. He also hosts a radio show at Emory's WMRE and is vice-president of the bicycle advocacy group, Spokes Council.

Kevin Yehl

ARCS Membership Award

Ph.D. Candidate, Chemistry First Year ARCS Scholar



Kevin graduated summa cum laude from University of South Carolina with a BS in Chemistry and is now pursuing a Chemistry PhD from Emory University. Kevin's research interests are DNA technology, synthetic-biology, and nano-walkers. Kevin has received an NSF East Asia and Pacific Summer Institutes (EAPSI), honorable mention NSF Graduate Research, and a GAANN Fellowship. He is an ACS-RISE Scholar, Magellan Scholar, and has published an article in ACS Nano. Kevin's career goal is to become a research professor. In his free time, Kevin enjoys playing soccer, hiking, walking his dog Izzy, and spending time with friends and family.

Georgia Market Tech

G.P. "BUD" PETERSON, PRESIDENT



For more than 50 years ARCS Foundation has been providing scholar awards for the STEM fields. For more than 125 years Georgia Tech has been educating students in the STEM fields. We are very pleased to be partnering with you to be able to provide a stellar education to outstanding and deserving students.

—))—

G. P. "BUD" PETERSON, Ph.D. President, Georgia Institute of Technology

Chastity Aiken

Ritz Carlton/ ARCS Membership Award

Ph.D. Candidate, Earth & Atmospheric Sciences First Year ARCS Scholar



Graduating Summa Cum Laude and with departmental honors in 2010 with a BS in Physics from Georgia State, Chastity is currently pursuing a PhD in Earth and Atmospheric Sciences at Georgia Tech. Her research focuses on studying tremor, a subtle fault movement in the lower crust, and its interactions with damaging earthquakes. Her work has covered much of the Western Hemisphere and has been published in international journals such as Nature and Geophysical Research Letters. In her spare time, she volunteers for Trees Atlanta, tutors high school students in physics and math, and engages in rock climbing.

Candace Brakewood

Drummond Award

Ph.D. Candidate, Civil & Environmental Engineering Second Year ARCS Scholar



Candace is pursuing a PhD in Transportation in the School of Civil and Environmental Engineering at Georgia Tech. Her academic pursuits focus on improving public transportation systems, and her doctoral research pertains to the utilization of new information and communication technologies by public transit riders. Candace has both a Master's of Science in Transportation and Technology Policy from Massachusetts Institute of Technology. She also earned a BS in Mechanical Engineering from Johns Hopkins University. Before attending graduate school, Candace worked as a Patent Examiner at the United States Patent and Trademark Office.

Lauren Casa

Hansen Award

Ph.D. Candidate, Mechanical Engineering
First Year ARCS Scholar



Lauren is a PhD candidate in Mechanical Engineering at Georgia Tech. She completed bachelor's degrees in Mechanical Engineering and Mathematics and a Master's degree in Mechanical Engineering at Southern Methodist University in Dallas, Texas. Lauren is interested in the application of fluid mechanics to biomedical problems and medical device design, particularly in the cardiovascular space. Currently, Lauren is investigating the effects of fluid dynamic conditions on blood clotting (thrombosis) related to heart attacks and stroke. In the future, Lauren plans to pursue a career in research and development in the biotechnology industry.

Warren Grav

Herz Global Impact Award

Ph.D. Candidate, Biomedical Engineering Second Year ARCS Scholar



Originally hailing from Oregon City, Oregon, Warren attended Oregon State University where he graduated summa cum laude in chemical engineering. His graduate work in biomedical engineering at Georgia Tech involves developing therapeutic systems for patients who have suffered from heart attacks. In addition to work in Atlanta, he spent a year abroad in Beijing, China, where he conducted research as a Whitaker International Fellow. Currently, he is developing a therapeutic that amplifies the body's natural beneficial response to heart attack. Outside the lab, he enjoys training for road races and leading the choir at his local church congregation.

Drew Loney

Liss/ARCS Century Award

Ph.D. Candidate, Mechanical Engineering
First Year ARCS Scholar



Drew received a BS in Civil Engineering from the Massachusetts Institute of Technology. During his tenure at MIT, he worked for Haley & Aldrich and the Army Corps of Engineers on issues relating to sustainable energy and risk assessment. Currently, Drew is a fifth year doctoral student in the department of Mechanical Engineering at Georgia Tech. His research lies at the intersection of fluid mechanics and acoustics, focusing on improving ink jet technology for use in additive manufacturing. When he is not working on his degree, Drew is a competitive ballroom dancer.

Sarah Miracle

Jones Award

Ph. D. Candidate, Computing Third Year ARCS Scholar



Sarah is from Taipei, Taiwan. In 2003 she graduated from Vanderbilt University with a BE in computer engineering and mathematics and a MS in computer science. She worked as an engineer and a manager at National Instruments in Austin, TX for five years before returning to academia. In the fall of 2008, she started work on her PhD in Algorithms, Combinatorics and Optimization at Georgia Tech. Her advisor is Dr. Dana Randall and her research interests include randomized algorithms and Markov chains. She is also the recipient of a DOE Office of Science Graduate Fellowship.

Elizabeth Nadelman

UPS Award

Ph.D. Candidate, Civil & Environmental Engineering First Year ARCS Scholar



Elizabeth is a PhD student in Civil Engineering at Georgia Tech She received her bachelor's degree from Princeton University, where she developed an interest in improving the durability of cement-based materials while studying freeze-thaw damage to concrete for her senior thesis. She is currently investigating the earlyage properties and long-term performance of concrete made with "green" limestone cements, seeking to develop more sustainable concretes that can be tailored to achieve both optimal early-age properties and enhanced long-term durability. When she is not studying concrete, Elizabeth plays clarinet in the Callanwolde Concert Band in Decatur, Georgia.

Temi Olubanjo

Liz Troy ARCS Light Award

Ph.D. Candidate, Electrical & Computer Engineering Second Year ARCS Scholar



Temi started her Electrical Engineering PhD program at Georgia Tech in January 2012. She obtained her bachelor's degree from University of Texas at Austin in December 2010, after which she worked for The Dow Chemical Company before beginning her graduate program. Her research interest is in application of engineering principles to improve the standard of living for people with disabilities and/or chronic illnesses; this includes assistive technology and wearable technologies that support healthcare and wellness. Temi is a 2013 National Science Foundation Graduate Research Fellow. In her leisure time, Temi enjoys dancing.

Matthew Plumlee

Printpack/Love Award

Ph.D. Candidate, Industrial & Systems Engineering
First Year ARCS Scholar



Matthew is a PhD student at the Stewart School of Industrial and Systems Engineering at Georgia Tech. He is researching new experimental and computational methods for system engineering and informatics. Collaborating with both academe and industry, Matthew has worked on projects including improving industrial nanopowder production, automated monitoring of steel rolling, and computational modeling of electrical activity in heart cells. Matthew has completed several publications that have been presented at conferences including INFORMS, where he received the 2012 Quality, Reliability and Statistics Best Student Paper Award.

Daniel Prosser

Siemens Award

Ph.D. Candidate, Aerospace Engineering
First Year ARCS Scholar



Daniel is a PhD student in Aerospace Engineering at Georgia Tech. His research interests include computational fluid dynamics and the aerodynamics of rotorcraft systems. His PhD research focuses on understanding and predicting the coupled aerodynamics and dynamics of cable-suspended loads carried by helicopters. He has published three conference papers and one journal paper to date. Daniel's honors include the AHS Vertical Flight Foundation Scholarship (2012), the Georgia Tech President's Fellowship (2011 -- present), and the RIT Outstanding Undergraduate Scholar Award (2010). Outside of work, he enjoys playing sports, playing the piano, and flying radio-controlled aircraft.

Laura Redmond

ARCS Century Award

Ph.D. Candidate, Civil & Environmental Engineering
First Year ARCS Scholar



Laura is a Civil Engineering PhD candidate and National Science Foundation graduate research fellow at Georgia Tech studying structural earthquake engineering. Her research is focused on hybrid reinforced masonry infill structures, which have the potential to improve the seismic performance and safety of structures across the globe. Laura has conducted research in Belize, Puerto Rico, Trinidad and Turkey, and will continue promoting multi-national knowledge exchange in her future work. Laura has worked in the past for Magnussen-Klemactic and Associates and Los Alamos Research Laboratory. Outside of the classroom, Laura enjoys running, swimming and volunteering with Klife, a local youth aroup.

Carol Young

Cooley Award

Ph.D. Candidate, Electrical & Computer Engineering
SecondYear ARCS Scholar



Carol, of Savannah, Georgia, graduated from Rensselaer Polytechnic Institute with a Dual Major in Aeronautical and Mechanical Engineering. She spent a year working at Electric Boat, before returning to school to pursue a PhD in Robotic Engineering from Georgia Tech. Carol hopes to apply her degree to sea or space exploration, and her current research goals include creating a framework for Autonomous Water Vehicles to interact in a close and safe manor with human swimmers. To achieve this goal she has focused her research on reinforcement learning, which would allow robots to autonomously adapt to various types of interactions.



JOHN SILVANUS WILSON, JR., PRESIDENT



Almost 10 years ago, I received a scholar award from the Atlanta Chapter of ARCS Foundation that supported an invaluable research experience at Morehouse College. This experience opened my eyes to the numerous possibilities as a scientist and has led me to the savannahs of Kenya to research yellow baboons and to the coast of Maine to study intertidal snails. Ultimately this odyssey that started with an ARCS Foundation Scholar Award has led me back to Georgia, where I am an Assistant Professor in the field of Stem Cell and Regenerative Biology at the University of Georgia. The support I received from ARCS Foundation made a definite and long-lasting impact on my career and desire to be a scientist.

FRANKLIN WEST, Ph.D.

ARCS Foundation Scholar

Artesse Conley

Davis Award

Biology Major First Year ARCS Scholar

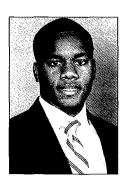


Artesse is a junior Biology major from Atlanta, Georgia. He is a member of the Dr. John H. Hopps, Jr. Defense Research Scholars Program and the Ronald E. McNair Postbaccalaurate Achievement Program. Last summer he conducted research under the supervision of Dr. Gertrude Schupbach at Princeton University in the Department of Developmental Biology studying the establishment of polarity in drosophila egg chambers. The previous summer he participated in the Summer Medical and Dental Education Program where he spent 6 weeks simulating the life of a medical student. Artesse plans to obtain the MD/PhD graduating from Morehouse College.

Lawrence Jacob

Genuine Parts Award

Applied Physics Major First Year ARCS Scholar



Lawrence is from Beltsville, Maryland and a candidate for a BS in Applied Physics from Morehouse College and a BS in Electrical Engineering from Georgia Institute of Technology. He also serves as the associate zone counselor of the Society of Physics Students and the project coordinator for the Applied Engineering Response Organization (A.E.R.O). This past summer he did research at Northwestern University using sacrificial layers to completely remove electron-beam lithography resist from graphene's surface. In the future, he plans to study photovoltaics and/or energy storage devices in graduate school.

Jerrell Mure

Glenn Award

Mathematics Major First Year ARCS Scholar



Jerrell is a senior Mathematics major at Morehouse College. His research interests are in applied mathematics, particularly with differential equations. In addition to his love for research, Jerrell enjoys several other activities such as, basketball, listening to and practicing music, and being involved in tutoring and aiding other students in mathematics. He has worked at Lawrence Livermore National Laboratory for two summers doing nuclear physics research and one summer at North Carolina State University doing applied mathematics research. A publication will result from the work done at North Carolina State University.

Francisco Nunez

Morehouse Leadership Award

Computer Science Major Second Year ARCS Scholar

Glenn



Francisco is a senior pursuing a Computer Science major with a Mathematics minor at Morehouse College. His research interests predominantly lie in the area of Neuroscience. He is specifically interested in cognitive learning, behavior, memory and computing. He plans to pursue a PhD in Neuroscience with a computer science application. Some of his honors include being an Oracle scholar, past BDPA (Black Data Processing Association) Scholar, a General Motors Scholar, Schwab Scholar, Microsoft Explore Program Finalist, Microsoft Student Partner, Dean's list awardee, member of his collegiate honor society, and Dr. John H. Hopps, Jr. Research Defense Scholar.

His work experience includes mobile application development at Hewitt Packard, Computational Seismology research at Stanford University, being a Microsoft Student Partner on his campus, and conducting research in Computational Plasma physics in Paris, France through a program at the University of Michigan Ann Arbor. Outside interests of his include basketball, working out, reading, mentoring, meditation and music.

Andrew Peterson

King & Spalding Award

Physics Major Second Year ARCS Scholar



Andrew is a rising senior at Morehouse where he is pursuing a major in Physics and a minor in Mathematics and Economics. His most recent research utilized nuclear magnetic resonance spectroscopy to analyze magnetic behavior of different particles and molecules. Andrew is a recipient of the American Physical Society's Outstanding Minorities in Physics Award given to minority undergraduate physics majors and is also a member of the Sigma Pi Sigma Physics Society. His immediate plan upon graduating from Morehouse is to pursue a PhD in Physics.

Anthony Scruse

Easterly/Johnson Award

Chemistry Major Second Year ARCS Scholar



Anthony is from Springfield, Ohio. He is an active member of the AUC Symphony Orchestra, the Morehouse Academic Team and has performed and toured with the Morehouse College Jazz Ensemble. He is a MARC U*STAR scholar and a veteran PLTL leader. He has participated in summer research experiences at Northwestern University, Brown University and the Broad Institute of Harvard and MIT. Anthony actively conducts research in organic chemistry at Morehouse College. He plans to pursue a PhD in organic chemistry upon graduation from Morehouse in hopes of becoming a chemistry professor.

Steven Summers

Meier Award

Chemistry Major First Year ARCS Scholar



Steven is a junior majoring in Chemistry at Morehouse College. Upon graduating, he plans to attend medical school and pursue the MD/PhD. His current research focus is on hydrogels, which have several biomedical applications that include cartilage repair and are used as implants in minimally invasive surgery. Steven conducted research at the Medical College of Wisconsin that was focused on pharmaceutical drugs that combat high blood pressure.

Octavious Talbot

Nix Award

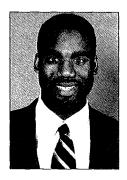
Mathematics Major First Year ARCS Scholar



Octavious is a Mathematics major at Morehouse. He plans to pursue a PhD in Statistics after graduation. Last summer, Octavious conducted research in the Mathematical Theoretical Biology Institute at Arizona State University.

Evan Turnage Franklin/ARCS Membership Award

Physics/Spanish Major First Year ARCS Scholar



Evan is a senior Physics and Spanish major at Morehouse and is from Jackson, Mississippi. He spent last summer investigating new methods of nanofabrication, which has promising applications in nanoantennas and improving solar energy. Upon graduating, he plans to pursue a doctoral degree in applied physics with the intent of becoming a professor of physics. Recently, Evan was inducted into the Phi Beta Kappa national honor society and the Sigma Pi Sigma Physics Society. He also enjoys speaking Spanish and spends time at Morehouse School of Medicine as an interpreter for medical students. Evan also tutors Morehouse students in physics and mathematics.

Shawn Wilkinson

Sartain Lanier Award

Computer Science Major First Year ARCS Scholar



Shawn is from Atlanta, GA and a senior at Morehouse College. He is currently pursuing a Computer Science major and Math minor. He plans to pursue a PhD in Computer Science in the field of wearable computing or digital currency. Since age 12, Shawn has been an independent developer, creating many websites and mobile apps. Recently he was selected to beta test and develop for Google's yet-to-be released wearable computing platform, Google Glass. He also advocates, develops with, and contributes to Bitcoin, an experimental digital currency.



The University of Georgia

JERE MOREHEAD, PRESIDENT



The impact of any university research enterprise depends ultimately on the quality of its graduate students. They are the life blood of all academic research efforts, which is why President Adams recently set a goal of enhancing UGA's graduate programs. The ARCS Scholars Program has been invaluable in helping UGA elevate the stature of its life science graduate programs, in particular. The honor it bestows upon those who are selected for the award motivates our students to reach higher, and the award also comes with important practical benefits in the form of discretionary funds that empower our best students. We could not be more grateful to ARCS Foundation for its support.

―))

DAVID LEE, Ph.D.

Vice President for Research University of Georgia

Rachelle Arnold

Adams Award

Ph.D. Candidate, Chemistry Second Year ARCS Scholar



Rachelle is a native of Woodburn, IN and graduated Summa Cum Laude from the University of Indianapolis in 2009, with a BS in Chemistry and Biology. As a doctoral candidate at University of Georgia in analytical chemistry, she works under Jason Locklin specializing in the development of surface-bound molecular bottle-brush polymers, for the study of diffusion and mechanical properties of extracellular barriers in pulmonary disorders. Rachelle currently has three firstauthor publications, while also contributing to a book chapter in Functional Polymers by Post-Polymerization Modification published by Wiley, VCH. She was also selected to present her research in the Excellence in Graduate Polymer Research Symposium at the Spring 2013 National American Chemical Society meeting in New Orleans, LA.

Eric DeJesus

Herz Global Impact Award

Ph.D. Candidate, Biochemistry & Molecular Biology First Year ARCS Scholar



After receiving a BS degree in Biology from the University of South Alabama, Eric joined the Biochemistry PhD program at the University of Georgia. There, under the guidance of Stephen L. Hajduk, he focused on the effects of a human innate immune molecule, called Trypanosome lytic factor (TLF), and its interactions in the human infectious parasite Trypanosoma brucei gambiense. His research and collaborations (University of Glasgow) have led to numerous presentations at national conferences and publications in PLoS Pathogens. An active member of the Biochemistry Graduate Student Association, Eric is now investigating the interactions of TLF and mammalian systems to better understand innate resistance mechanisms.

Matthew Furgerson

Dick Award

Ph.D. Candidate, Biochemistry & Molecular Biology First Year ARCS Scholar



Matthew was born in Atlanta, Georgia and is pursuing his PhD in Biochemistry and Molecular Biology at the University of Georgia. Matthew's research interests involve various aspects of Alzheimer's disease and have resulted in several publications, a press release, as well as being awarded the Mary Erlanger fellowship for his contributions to mental health research. In addition to research, teaching is also very important to Matthew. He has been awarded for his teaching abilities at UGA and has participated in the prestigious Future Faculty Program. Matthew considers himself an oenophile and enjoys cigars, growing orchids, playing croquet, and tennis.

Jessica Hoffman

Glover Award

Ph.D. Candidate, Genetics First Year ARCS Scholar



Jessica received her BS degree in Biology from Clemson University, and she is currently pursuing a PhD in genetics at the University of Georgia under Dr. Daniel Promislow. Her research focuses on using high throughput metabolomics to understand how small molecules in organisms affect aging. She has presented her research at national conferences and has been published in high profile journals. She has been awarded an NIH training grant and Bishop fellowship from the UGA Genetics department, and she has presided as president of the Genetics Graduate Student Association.

Sau Wai Hung

Herz Award

Ph.D. Candidate, Pharmaceutical & Biomedical Sciences First Year ARCS Scholar



Wai received her BS degree in Zoology from the University of New Hampshire and is currently pursuing her PhD in Pharmaceutical and Biomedical Sciences at the University of Georgia under the guidance of Dr. Raj Govindarajan. Her research focuses on better understanding the progression of pancreatic cancer in order to discover novel approaches for overcoming chemoresistance and metastasis. Wai has presented her research at numerous national conferences and has several publications in peer-reviewed journals. For her work, she has received four awards, two research grants, and a pre-doctoral fellowship. Wai is an active member of several University organizations and enjoys mentoring undergraduates in laboratory research.

Jennifer Lee

Burtchaell Award

Ph.D. Candidate, Psychology First Year ARCS Scholar



Jennifer received her BS in Psychology from the University of Georgia. She is currently pursuing a PhD in Clinical Psychology under the mentorship of Dr. Ron Blount at UGA. Jennifer's work focuses on the intersection of psychological and biological health in children and adolescents. As a graduate student, Jennifer has received a number of prestigious awards and grants. Her research and clinical career have focused on domains of pain, oncology survivorship, transition of care from pediatric to adult healthcare, and health behavior adherence. Jennifer's dissertation will examine the predictors of transplant functioning in children that receive solid organ transplants.

Kristin Loiselle Gilham/ARCS Membership Award

Ph.D. Candidate, Psychology SecondYear ARCS Scholar



Kristin received her BS degree in Psychology from Drexel University. She is a graduate student member of the Pediatric Psychology Lab at the University of Georgia under the mentorship of Dr. Ron Blount, where she investigates factors that affect adherence to medical regimens among pediatric solid organ transplant recipients. She has presented her research at national conferences and has numerous publications in peerreviewed journals. In the future, Kristin aims to develop evidence-based medical adherence interventions for pediatric medical centers. In addition to research involvement, Kristin has served in leadership and mentoring positions within the Psychology department. In her spare time, Kristin enjoys playing tennis.

Colette Miller

ARCS Membership Award

Ph.D. Candidate, Foods & Nutrition First Year ARCS Scholar



Colette received her BS degree in Exercise Science from Florida State University and her MS degree in Nutrition from the University of North Carolina at Greensboro. She is currently a doctoral student in Nutrition at the University of Georgia under the direction of Dr. Clifton A. Baile. Colette's research focuses on the role of estrogens in the prevention of non-alcoholic fatty liver disease. Her research has been presented at conferences including Experimental Biology and Endocrinology, among others. During her career at the University of Georgia, Colette has published several manuscripts and has been awarded with the Endsley-Peifer Student Research Award for her work. In her spare time, Colette enjoys cross training and reading non-fiction literature.

Natale Sciolino

ARCS Century Award

Ph.D. Candidate, Neuroscience Second Year ARCS Scholar



Natale is a doctoral candidate in the Neuroscience PhD program at the University of Georgia. The aim of Sciolino's dissertation is to uncover how exercise alters the brain to produce stress resilience. Her research uses behavioral, anatomical, and neurochemical tools to highlight an important role for the brain chemical galanin in stress resilience. Her research has the potential to show how normal and disordered brains operate. Sciolino received research support from the National Institute of Health, National Science Foundation, and McNair program. Her long-term aspiration is to secure a tenure-track position as a behavioral neuroscientist at a top institution.

Rebecca Sweet

Mauldin Award

Ph.D. Candidate, Pharmaceutical & Biomedical Sciences First Year ARCS Scholar



Rebecca is from Rochester, NY and received her BS degree in Biochemistry from the University of Dayton in 2009. She is currently a PhD candidate in the Department of Pharmaceutical and Biomedical Sciences in the College of Pharmacy at UGA. She is conducting research focusing on the adaptive regulation of thiamine transport under the guidance of Dr. Jason Zastre. Thiamine deficiency has been reported to be associated with a number of pathologies including cardiovascular and nervous system diseases, brain encephalopathy, diabetes, Alzheimer's disease and cancer; and her research will aid in the realization of therapeutic strategies that modulate thiamine transport capacity. Rebecca is an active member of the American Association of Pharmaceutical Scientists (AAPS). American Association for Cancer Research (AACR) and UGA Graduate Students and Postdocs in Science (GSPS).

ARCS® FOUNDATION, INC. ATLANTA CHAPTER BOARD OF DIRECTORS 2013-2014

EXECUTIVE BOARD

President
President Elect
Vice President Administration
Vice President Finance/Treasurer
Vice President Membership
Vice President University Relations
Vice President Funds Development

Vice President Communications Vice President Education/Events Recording Secretary Parliamentarian Gracia Conn
Jane Dolinger
Leslie Petter*
Louise Yeoman
Lee Doyle*
Brooke Weinmann*
Anne Easterly* and
Sally McDaniel*
Joan Heazel*
Caroline Hardin*
Shearon Glover
Susan McGonigle

COMMITTEE CHAIRS AND CO-CHAIRS

ARCS Scholars Chair ARCS Scholar Alumni Chair Assistant Treasurer Funds Development VP-Elect Endowment Fund Chair 2014 Retreat Chairs

2013 Luncheon Chair Luncheon Chair-Elect Member Relations Chair Public Relations Chair Public Relations Chair-Elect Special Events Chair Special Events Chair-Elect Website Chair Historian Newsletter Editors

Newsletter Publisher
Directory Chair
Internal Communications
Speakers Bureau
Nominating Committee Chair
Administrative Assistant

Liz Lauer* Susie Devo Carol Meier Nancy Chambers* Liz Trov Janie Wilson and Peg Cooley Sylvia Dick Sara Jean Burke Robin King Patty Reid Yetty Arp **Barby Levy** Corrie Johnson* Ronnie Martin Anne Boyd* Carla Fackler and Judy Schmidt Lisa Bankoff Connie Dotzenrod Frances Swensson Kathryn Graves* Susan Higley* Pat Leake

^{*}New in 2013

SCHOLAR AWARDS LUNCHEON COMMITTEE 2013

Chairman
Chairman-Elect

Funds Development

Sylvia Dick Sara Jean Burke

Linda Kay McGowan, Chair Anne Boyd Susan Boyd Anne Easterly* Beth Finnerty Libby Jones Sherry Lundeen Sally McDaniel* Debbie Shelton Mary Snitch Frances Swensson

Liz Troy

*Co-chairs, 2013-14

Flowers
Nametags
Program
Public Relations
Registration
Reservations
Scholar Relations
Seating
University Relations

Ambassadors

Yetty Arp
Pat Leake
Sara Jean Burke
Patty Reid
Frances Swenson
Pat Leake
Liz Lauer
Haidee Courson
Brooke Weinmann

Deede Stephenson, Chair Sally Boice Susie Boyd Eileen Christman Beth Finnerty Marty Gillin Kathryn Graves Caroline Hardin Susan Higley Sally Hinkle Monica James Robin King Elizabeth Martin Leslie Petter Vicki Riedel Ann Sterchi Liz Troy Mollie Winston Barrow

ARCS FOUNDATION ATLANTA CHAPTER MEMBERSHIP

ACTIVE MEMBERS

Sharon Ansley Yetty Arp Lisa Bankoff Mollie Winston Barrow Jan Bennett Jeanne Berry Kathy Berry Becky Blalock Susan Bledsoe Sally Boice Anne Boyd Susan Boyd Pat Bras* Camille Buice Sara Jean Burke Jenny Cannon Nancy Chambers Eileen Christman Gracia Conn Peg Cooley Lynn Cornett Ada Lee Correll Haidee Courson Ann Curry Elaine Davis Susie Devo Sylvia Dick Jane Dolinger Connie Dotzenrod Lee Doyle Anne Easterly Molly Eskew Carla Fackler Betty Feezor Elizabeth Finnerty Michele Gandy Caroline Gilham Marty Gillin

Lou Glenn

Shearon Glover Elsie Gould Kathryn Graves Joanne Gross Caroline Hardin Laura Hardman Katherine Harman Kitty Hawks Joan Heazel Susan Higley Sally Hinkle Trudy Huger Mary Alice Isele Monica James Helen Jancik Sally Jobe Cheryl Dabney Johnson Corrie Johnson Elizabeth Jones Cecy Jones Anita Kern Robin King Liz Lauer Pat Leake Liz Levine Barbara Levy Deborah Liss Betts Love Valerie Love* Sherry Lundeen Elizabeth Martin Ronnie Martin Linda Mauldin Alicia McCabe* Missy McClatchey* Sally McDaniel Susan B. McGonigle Linda Kay McGowan

Maggi McKay

Leslie McLeod Carol Meier Joanie Michaels Cathey Millichap Sue Missbach Michelle Nordin Regina Olchowksi Leslie Petter Ginny Plummer Teed Poe Sharon Quaintance Kathy Rainer Nancy Rank Patty Reid Vicky Riedel Phyllis Rodbell Judy Schmidt Penny Seawell Deborah Shelton Mary Snitch Elizabeth Spiegel Deede Stephenson Anne Sterchi Suzn Stewart* Frances Swensson Carol Teem Babette Tipping Liz Troy Pat Tuff Lissa Webber* **Brooke Weinmann** Kay Weiss Clare Whitfield Janie Wilson Louise Yeoman Marguerite York

*New Members

ASSOCIATE MEMBERS

Madeline Adams Jane Alexander Kathy Ashe

Paula Lawton Bevington

Reg Bridges Alice Brown Ann Cousins Connie Dimling Marcia Donnell Patsy Drummond Marie Foster Kristen Gibbs

Kristen Gibbs Sarah Gladden

Joan Goodhew Louise Gunn Lillo Harris Aileen Hatcher

Ann Hill

Jane Huffard Trina Johns Randy Jones Ann Klamon Margaret Kresge Lynne Land K Maier

Harriett Miller Sue Mobley Betty Mori

Brenda Moseley

Lu Napier

Lynn Cochran Schroder Mary Rose Taylor Babette Tipping Kristin Whatley Sue Wieland Barbara Williams

HONORARY MEMBERS

Mary O'Connor Val Peterson Debbie Wagner Carol Espy-Wilson