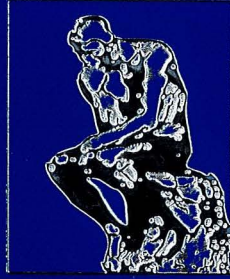

ARCS



FOUNDATION INC

*The Annual Scholarship Awards
Luncheon
2004*

A R C S



FOUNDATION INC

Atlanta Chapter

Program

Welcome

Teed M. Poe, President, ARCS Atlanta Chapter

Guest Recognition

ARCS Mission and History

*Presentation of
2004 ARCS Atlanta Scholars*

Lunch

Introduction of Keynote Speaker

Betty Feezor, 2004 ARCS Light

Dr. Janet K. A. Nicholson

Associate Director for Laboratory Science

National Center for Infectious Diseases

Centers for Disease Control and Prevention

Moderator

Bill Liss, Business, Financial & Consumer Editor, WXIA-TV

Closing Remarks

Teed M. Poe

Presenting Sponsor



Raymond R. Christman
President and
Chief Executive Officer

From the President

Welcome to the 13th Annual ARCS Scholarship Luncheon. It is with great pleasure that we honor these outstanding scholars who are doing important work in science, engineering and medicine at Emory University, the Georgia Institute of Technology, Morehouse College, and the University of Georgia. As the cost of education rises, it is imperative that we work together to fund these brilliant young men and women.

We wish, also, to thank our donors who make this possible. All of these scholars have their own story to tell, and each is so appreciative of the \$5000 funding we are able to give them to pursue their studies. I hope everyone will have a chance to speak to our scholars and know what a difference their sponsorships make. Hear their individual stories and be encouraged about our collective future.

This year ARCS will have awarded a cumulative total of \$49,214,086 to some of America's brightest and finest young people as they continue their studies, an effort that will help the United States maintain its standing in the world as a leader in science and technological innovation. The Atlanta Chapter has come a long way since 1992 when we awarded our first three scholarships totaling \$15,000. Today, we will award \$212,000 to 44 scholars. Each of them has been nominated by their departments to be honored and because they meet the high standards required by the ARCS Foundation.

Our thanks, also, go to our ARCS members who through their dues and contributions will provide \$125,000 of the scholarships awarded today. We have been blessed to have corporations, foundations and families join us in this effort. We hope our scholars, their work, and the support that they need to be at the forefront of their fields, will inspire others in our audience to come along with us on this journey. We all profit from what these young people are doing. Take note, one hundred percent of every dollar donated goes directly to scholarships.

Finally, I wish to recognize our Presenting Sponsor, Federal Home Loan Bank of Atlanta and our entire Luncheon Committee, chaired by Leslie McLeod and Elizabeth Martin, for their year-long efforts to bring us to this wonderful celebration.



President, ARCS Atlanta Chapter

2004 Scholarship Donors

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in partnership with Denver Chapter of ARCS
Two Scholarships

\$5,000

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We are proud to recognize the following donors who have contributed to the Atlanta Chapter of Achievement Rewards for College Scientists throughout our brief history. Each donor has given a cumulative gift of \$25,000 or more.

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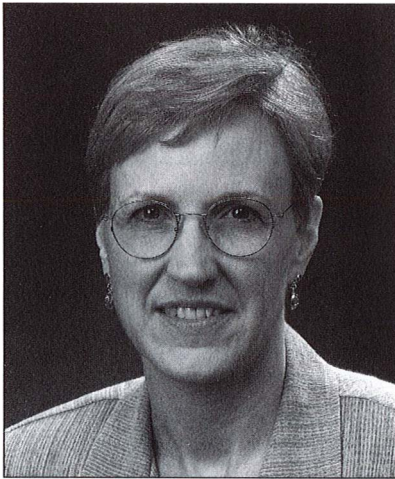
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Dr. Janet K. A. Nicholson
Associate Director
for Laboratory Science
National Center for Infectious Diseases
Centers for Disease Control and Prevention

Dr. Nicholson wears many hats at the CDC. She is a well known researcher in her field and represents the NCID/CDC laboratory scientists in a wide variety of issues related to infectious diseases ranging from biosecurity to specimen management to working with other public health laboratories. She received her Ph.D. from Emory University in Experimental Pathology and was at CDC when the first cases of HIV were discovered. Her lab became very involved in HIV research, and she has published extensively in this area. She is recognized for pioneering work in HIV immunology, flow cytometry and CD4 cell counting in HIV. She has been actively involved in the clinical flow cytometry community, serving as president of the Clinical Cytometry Society. Dr. Nicholson serves on a number of governmental and non-governmental committees in both national and international settings. She has been involved in biosecurity since 2001 when she engaged with other Federal partners in ad hoc, then more formal working groups, to develop guidelines for biosecurity for the United States. She was one of three scientific experts on biosecurity at the Biological Weapons Convention Experts Meeting in 2003. Dr. Nicholson manages the animal care and use at the CDC, oversees technology transfer of research in the labs and monitors the institutional biosafety. She coordinated CDC's lab activities and actively engaged all states involved in the anthrax response and has participated in the SARS response as well. She also oversees a Post Doctoral Fellowship Program in Infectious Disease.

Many honors and awards have been presented to Dr. Nicholson. She is a member of the Senior Biomedical Research Service, a recipient of the Charles C. Shepard Science Award for the best scientific paper from the CDC in 1987 and a part of the Public Health Leadership Institute from 2002 to the present. Dr. Nicholson is a frequent speaker at international conferences, and we are honored that she is with us today.

ARCS At A Glance

Chapters

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

Mission

The ARCS Foundation provides scholarships to academically outstanding United States citizens studying to complete their degrees in science, medicine and engineering thereby contributing to the worldwide advancement of science and technology.

Achievements

For the 2003-2004 academic year, ARCS chapters have awarded \$3,770,437 to 483 scholars at 45 schools. During the 46-year history of ARCS, a total of \$49,214,086 has been awarded to financially assist students of high achievement.

Scholarship Donors and Fundraising

The more than 1,400 members of ARCS are women volunteers who willingly and enthusiastically donate their time, efforts and financial support. Because all scholarship fund solicitation and administration expenses are underwritten or donated by ARCS members, **100 %** of all contributions go directly to scholarships.

ARCS Foundation, Inc. provides a way for corporations, civic organizations and individuals in the community to combine resources and efforts to support American scholars, helping to ensure a better future for all. ARCS awards for basic scientific education are the largest of any private membership organization in the United States.

Web Site: ARCSFOUNDATION.ORG

Emory University

Anthony M. Byers

Second Year ARCS Scholar

Ph.D. Candidate, Immunology

The Ritz-Carlton, Atlanta ARCS Fellowship



Tony received his B.S. degree in Biochemistry from Duke University in 1999. After studying the accumulation of toxic metabolites in immunodeficient humans as an undergraduate and then at Duke Department of Medicine for a post-graduate year, he came to Emory University to pursue a Ph.D. degree in Immunology. Tony is currently a fifth year student in the Immunology program and conducts his thesis research in the laboratory of Dr. Aron Lukacher. His research focuses on the memory phase of the immune response to persistent viral infections. Tony has presented his research at three immunology conferences and has published a first-author research article in the *Journal of Immunology*. Outside of science, Tony enjoys playing soccer and softball.

Mary E. Chlebowski

First Year ARCS Scholar

Ph.D. Candidate, Chemistry

ARCS Membership Fellowship



Mary graduated from Niagara University, Niagara Falls, New York, in 2001 with a B.S. in Chemistry and a minor in Criminal Justice. She spent the summer of her junior year doing research at the University of Florida under the direction of Dr. McElwee-White. Returning to NU, Mary conducted her senior research thesis on the synthesis and analysis of cantharidin with Dr. J. Krause. She is currently at Emory University on a Ph.D. track in Chemistry working for Dr. F. Menger. Her research includes preparation and characterizations of novel amphiphiles. She is presently taking part in a freshman seminar sponsored by the Howard Hughes Medical Institute Teaching Fellowship that is designed to encourage undergraduates' interest in scientific research. Outside of her studies, Mary enjoys art, music and football.

Emory University

Kimberly J. Dougherty

Second Year ARCS Scholar

Ph.D. Candidate, Neuroscience

James R. Kuse Foundation ARCS Fellowship



Kim graduated from Boston College in 2000 with a B.S. in Biochemistry and Psychology. She was introduced to research as an undergraduate in a lab studying the structure of dopamine receptors. After graduation, she began graduate studies in the Neuroscience program at Emory University. Kim's current research is focused on spinal inhibitory neurons involved in pain circuitry and how the physiological and molecular properties of these neurons are altered by neurochemicals and injury. In addition to the honor of being a Second Year ARCS Scholar, she received a National Research Service Award from the National Institutes of Health. Kim plans to pursue a position in academia upon completion of her doctoral degree.

Beven P. Livingston

Fourth Year ARCS Scholar

Ph.D. Candidate, Neuroscience

Faryl S. Moss & Ann D. Salo ARCS Fellowship



Beven earned a B.A. degree in Biology from Transylvania University, a B.H.S. degree in Physical Therapy and a M.S. in Kinesiology from the University of Kentucky. Her interest is in the field of rehabilitation. She spent twelve years working as a physical therapist and athletic trainer before beginning her graduate work in Neuroscience. Her focus as a researcher and teaching professional is to help students understand the importance of basic science and how to integrate this information into a successful clinical treatment plan for rehabilitation. Beven enjoys tennis, watching her husband compete in triathlons and playing with her 16-month old son, Aiden.

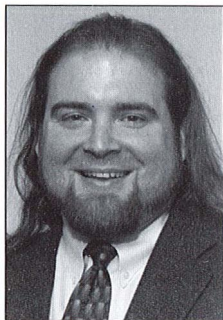
Emory University

Mitchell P. Maddox III

Second Year ARCS Scholar

Ph.D. Candidate, Chemistry

Zeist Foundation, Inc. ARCS Fellowship



Trey is a native of Panama City, Florida. Following two years at Gulf Coast Community College, he received his B.S. degree in Biochemistry from the University of West Florida in Pensacola. As a graduate student at Emory University, his research interests include organic, organometallic and biological research. Trey's current project is investigating the use of photolitically active organometallic complexes as carbon radical precursors for the modification of biomolecules. While at Emory, he received the GAAN Fellowship in 1999 and the Boehringer-Ingelheim Fellowship in 2001. He plans to seek a position in academia upon completion of his academic degree. In his spare time, Trey is an avid softball player and very active in his local church.

Melinda D. Maris-Mackereth

Second Year ARCS Scholar

Ph.D. Candidate, Genetics & Molecular Biology

Marcia & John Donnell ARCS Fellowship



A 2000 graduate of the College of William and Mary, Mindy's research focuses on the development of the vertebrate inner ear. She had the honor and pleasure of introducing Atlanta ARCS Chapter Members to the use of zebrafish as a model system for studying ear development at their 2004 Spring Luncheon. Mindy has presented her work in many exotic locations such as Honolulu, Paris and Kansas City, and has received numerous awards and recognition, including being the first Biology Department student to receive a Dean's Teaching Fellowship. When she is not in the lab, Mindy enjoys spending time with her dog, MACS, her cat, Zane, and her new husband, Charles. She is also an active alumna member of her sorority, Phi Mu.

Emory University

Erin L. Murray

**Second Year ARCS Scholar
Ph.D. Candidate, Epidemiology
Georgia Gulf Corporation ARCS Fellowship**



Erin graduated magna cum laude in 1999 with a B.S. degree and College Honors in Mathematics from Westminster College in New Wilmington, Pennsylvania. In 2001, she graduated with an M.S.P.H. degree in Epidemiology from Emory University's Rollins School of Public Health. Erin's current research interests are influenza and other respiratory infections, particularly in developing countries. Her dissertation will examine the effects of environmental risk factors on acute lower respiratory infections in Bangladeshi children less than five years of age. In her free time, Erin enjoys competing in triathlons and volunteering as a cycling coach for Special Olympics.

Leah H. Schlientz

**First Year ARCS Scholar
Ph.D. Candidate, Chemistry
Madeline & Howell Adams ARCS Fellowship**



Leah graduated from Hendrix College with distinction in Chemistry in 2000. As a graduate student at Emory University in the laboratory of Dr. Karl Hagen, she has performed research in inorganic chemistry, including iron coordination complexes and clusters that mimic the active site of metalloenzymes. While at Emory, she received the GAANN Fellowship in 2000 and a NSF PRISM Fellowship in 2003 that involved the development and implementation of an innovative science curriculum for high school students. Leah is interested in pursuing a career in academia upon completion of her degree. She enjoys running and playing in volleyball leagues and tournaments.

Emory University

Jenny Henderson Schulz

Fourth Year ARCS Scholar

Ph.D. Candidate, Nutrition & Health Sciences The Teem Family ARCS Fellowship



Jenny's interest in science and agriculture was first piqued growing up on a farm in Iowa. While pursuing her degree in Biology from Drake, she worked in the Plant Pathology department at Iowa State University identifying treatments for the soybean cyst nematode, which affects growth and production in 75% of all Iowa fields. For her graduate career, she turned her focus from agriculture to nutrition. At Emory, she has investigated the inherited metabolic disorder, Galactosemia, under the direction of Dr. Judith Fridovich-Keil. In addition to receiving support from ARCS, she was also awarded an NIH training grant through her graduate program. Jenny hopes to pursue a career in science communication and education.

Chanley M. Small

Second Year ARCS Scholar

Ph.D. Candidate, Epidemiology ARCS Membership Fellowship



Chanley earned her B.A. degree in Environmental Studies at Brown University in 1991 and M.S. in Biology at Stanford University in 1995. Her research at Emory University is focused on the relationship between environmental exposures and reproductive health. She also studies how genetic variants, both independently and in combination with environmental exposures, affect reproductive health. Chanley used her first year ARCS Fellowship to fund a study examining the relationship between *CYP17* and hormone levels in women. She is currently Project Director for a National Institute of Health study examining how polybrominated biphenyl exposure affects reproductive outcomes. After graduating, she hopes to continue this research in addition to teaching. Chanley has three children, Payton (6), Aidan (3) and Coleman (2).

Emory University

Christine Schaner Tooley

First Year ARCS Scholar

Ph.D. Candidate, Biochemistry

Frances & Parks Hicks ARCS Fellowship



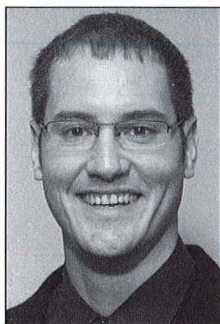
Christine graduated magna cum laude from the University of Rochester in 2000 with a B.S. in Biochemistry. While at Rochester, she worked in two different laboratories, studying the function of membrane-bound ATPases and the metabolism of glutamate in rat brain astrocytes. In 2000, she joined the Biochemistry, Cell and Developmental Biology graduate program at Emory. She is currently a fifth-year graduate student in the lab of Dr. William Kelly, studying germline development in the nematode *C. elegans*. Last year she was named a Howard Hughes Medical Institute Teaching Fellow, and was given the opportunity to teach her research in a freshman seminar class. She has also been interviewed about her research for National Public Radio. In her free time, Christine enjoys running and spending time with her husband.

Jason C. Valentine

First Year ARCS Scholar

Ph.D. Candidate, Chemistry

Greene-Sawtell Foundation ARCS Fellowship



As an undergraduate, Jason attended Western Maryland College (currently McDaniel College) where he began his research career synthesizing inhibitors of HIV-1 reverse transcriptase at the National Cancer Institute. He then began graduate studies at Emory University where he has investigated the biomimetic synthesis of biologically active molecules. Jason plans to pursue a career in academia upon completion of post-doctoral studies. While at Emory, he has twice received the GAAN Fellowship and has also been awarded the Boehringer-Ingelheim Fellowship. When not in the lab, Jason enjoys spending time with his fiancée, Erin, and their young Boston Terrier, Olive.

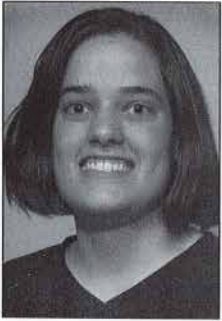
Emory University

Renata M. Zappala

Second Year ARCS Scholar

Ph.D. Candidate, Biology

Frances & Parks Hicks ARCS Fellowship



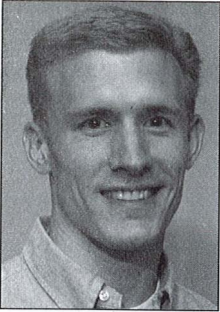
Renata attended the University of Pennsylvania where she majored in Biology and lettered on the women's basketball team. She came to Emory University as a student in the M.D./Ph.D. program. She has spent the last four years in the Population Biology Ecology and Evolution program in the lab of Bruce Levin. Renata's thesis research focuses on understanding the population dynamics of bacterial infections and applying this knowledge to understanding how antibiotic treatment selects for antibiotic resistance. One research goal is to be able to design antibiotic treatment protocols that are effective in clearing the infection while also decreasing the prevalence of antibiotic resistance. Renata enjoys cycling, dividing her time between road cycling and mountain biking in the north Georgia mountains.

Georgia Institute of Technology

Matthew S. Allen

Second Year ARCS Scholar

**Ph.D. Candidate, Mechanical Engineering
Patsy & Jere Drummond ARCS Fellowship**



Matt completed his B.S. degree in Mechanical Engineering at Brigham Young University. As an undergraduate he worked at Patterned Fiber Composites designing highly damped carbon fiber composites for the Air Force. This research resulted in a spin-off company that used the technology to create highly damped golf club shafts. Currently, Matt's research is concerned with determining a structure's vibration properties from experimentally measured vibrations. After graduating this summer, he hopes to continue to be active in research and also mentor students as a university professor. Matt is the father of two young children and loves spending most of his free time with his family.

Erika A. Ooten Biediger

Third Year ARCS Scholar

**Ph.D. Candidate, Mechanical Engineering
Robbins/Mauldin ARCS Fellowship**



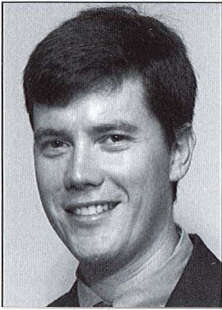
Erika received a Bachelor of Science degree with honors from Texas A&M University in 1998. After receiving a NSF Fellowship, she began her graduate studies at Georgia Tech and graduated with her Masters in Mechanical Engineering in December 2000. After winning a NASA Goddard Space Flight Center Graduate Student Researchers Program fellowship, she shifted her Ph.D. research focus to vibration suppression of formation flying satellites. Her research is focused on controlling the motion of multiple satellites within a formation. This purpose of this research is to provide NASA with a satellite controls framework that allows the satellites to move in the formation with little or no residual vibration. After graduating, Erika plans to pursue a career in industry.

Georgia Institute of Technology

Brian A. English

First Year ARCS Scholar

**Ph.D. Candidate, Mechanical Engineering
C. Tycho & Marie Howle Foundation ARCS Fellowship**



Brian received the BME and MME degrees for Mechanical Engineering from Georgia Tech in 1997 and 1999, respectively. He was an undergraduate Woodruff Teaching Intern from 1996-1997 and worked with the Savannah Sugar Refinery through the co-op plan. He is currently a Ph.D. candidate, and his research is focused on integrating lamination and electronic packaging technology with micromachining processing to develop fluidic actuators for aerodynamic flow control applications. As a graduate student, Brian was again a Woodruff Teaching Intern and worked at JWI as a design engineer through the graduate co-op plan. He is an active member of AIAA, ASME and IEEE. Away from work, Brian enjoys playing tournament bridge with his wife.

Andrea F. Forte

Second Year ARCS Scholar

**Ph.D. Candidate, College of Computing
Cooley Family Foundation ARCS Fellowship**



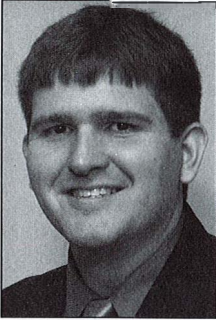
With an undergraduate background in the humanities, Andrea's path to the sciences was not typical, but one she hopes will become more common with the development of multidisciplinary programs. She received a B.A. degree in Foreign Languages and Literature in 1996 from Western Michigan University where she earned multiple merit-based awards. After completing a Master's degree in Library and Information Science from the University of Texas in 1998, an interest in human-computer interaction led her to a professional position as an interface designer. In 2002, Andrea returned to school to explore the design of effective computer-based environments for human learning and communication. She is working with professor Amy Bruckman to explore the community-building potential of networked environments in non-technical classes.

Georgia Institute of Technology

Brian H. Fralix

First Year ARCS Scholar

**Ph.D. Candidate, Industrial & Systems Engineering
AT&T ARCS Fellowship**



Brian earned a Bachelor of Science degree in Mathematical Sciences from Clemson University in 2002. Later that fall, he arrived at Georgia Tech to pursue a Ph.D. in Industrial and Systems Engineering specializing in stochastic systems. His current research focuses on the theory of Palm probabilities, particularly within the context of non-stationary random measures, and how they can be applied toward problems in queueing theory. He recently participated with other researchers on a project that involved using these ideas to calculate the inter-departure time distribution of certain types of base-stock inventory systems. After graduation, Brian plans to pursue a career in academia.

Charlotte Walker Kotas

Second Year ARCS Scholar

**Ph.D. Candidate, Mechanical Engineering
ARCS Century Fellowship**



Charlotte earned her undergraduate degree in Mechanical Engineering from the University of Tennessee where she was active in the University Honors Program, Cooperative Education Program and Tau Beta Pi, an engineering honor society. After receiving a NSF Graduate Fellowship, she came to the George W. Woodruff School of Mechanical Engineering at Georgia Tech where she received a Master's degree in the fall of 2003. Charlotte is currently working on her doctoral research in fluid dynamics and acoustics. She is combining the two areas to explore the role of fluid flows in hearing. Charlotte plans to finish her Ph.D. at Tech and continue to work in an academic environment.

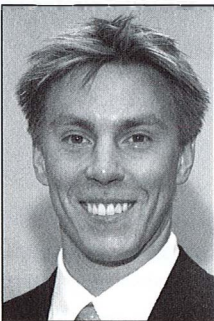
Georgia Institute of Technology

Anne-Marie Albanese Lerner **Second Year ARCS Scholar**
Ph.D. Candidate, Mechanical Engineering
Siemens, Inc. ARCS Fellowship



Anne-Marie received her Baccalaureate degree in Mechanical Engineering from Washington University in St. Louis. She began her graduate work at Georgia Tech in 2000 in the acoustics and dynamics group. Her research interests include vibration control, semi-active control algorithms, noise control and smart materials. Her current project, "A stability and controllability analysis of magnetorheological elastomers in state-switched absorbers," involves using smart materials to semi-actively control vibration in host devices. This project could be potentially useful in controlling vibration of everyday tools such as airplane wings, car seats and washing machines. Anne-Marie enjoys playing the cello, spending time with her husband as they train their two dogs, and cheering on the Yellow Jacket football team.

Brian M. Lewis **Third Year ARCS Scholar**
Ph.D. Candidate, Industrial & Systems Engineering
Goldman, Sachs & Co. ARCS Fellowship



Brian earned a B.S. degree in Industrial Engineering and Operations Research from the University of California, Berkeley in 1999, followed by a M.S.E. degree in the same field from the University of Michigan in 2001. At Georgia Tech, Brian is pursuing a Ph.D. in Industrial and Systems Engineering where his research investigates the effects of security and disruptions on supply chain efficiency. He is a Dwight D. Eisenhower Graduate Transportation Fellow and an Eno Fellow. Brian enjoys spending time with his wife, Sandi, a public health Ph.D. student at UNC-Chapel Hill and drawing his comic strip, *Q.E.D.*, which is published in numerous college newspapers.

Georgia Institute of Technology

James R. Luedtke

Third Year ARCS Scholar

**Ph.D. Candidate, Industrial & Systems Engineering
Betsy & Harald Hansen ARCS Fellowship**

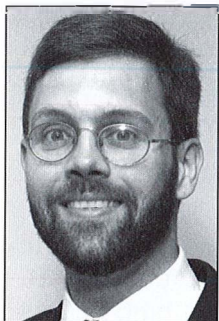


Jim graduated from the University of Wisconsin-Madison in 2001 with a degree in Industrial Engineering. From Wisconsin, Jim followed the warm weather to Georgia Tech where he completed a Master's degree in Operations Research in 2004. His current research applies Operations Research techniques to investigate how companies can use information about the status of their material throughout their supply network to reduce costs caused by random disruptions such as security inspections at foreign ports. Jim is a National Science Foundation Fellow and has gained industry experience with internships at W.L. Gore, Agilent Technologies and ExxonMobil. Outside of school, Jim enjoys mountain biking and spending time with his wife, Leigh.

Jerome W. O'Neal

Second Year ARCS Scholar

**Ph.D. Candidate, Industrial & Systems Engineering
Harriet and Sandy Miller ARCS Fellowship**



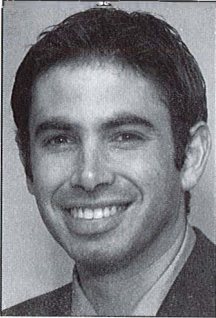
Jerry is a Ph.D. student in the School of Industrial and Systems Engineering. His research work is in continuous optimization, with a focus on interior-point algorithms for conic programming. Currently, he and his advisor, Professor Renato D.C. Monteiro, are investigating the use of iterative solvers in interior-point algorithms. Jerry received a B.S. degree from the United States Military Academy at West Point in 1993, then served for almost eight years in the U.S. Army Corps of Engineers before leaving the military in 2001. He is a National Science Foundation Fellow and an American Society of Engineering Education Fellow. Jerry's outside interests include family and church activities. He and his wife, Amy, have two children, Mary Grace, age six and Andrew, age three.

Georgia Institute of Technology

Joshua E. Reed

Second Year ARCS Scholar

Ph.D.Candidate, Industrial & Systems Engineering
Betty Feezor ARCS Light Fellowship



Josh holds a B.S. degree in Industrial Engineering from the University of Illinois, Urbana-Champaign. He is currently a Ph.D. candidate in the school of Industrial and Systems Engineering at Georgia Tech. His interests lie in the application of stochastic process theory to queueing and assemble to order systems. Josh's past work developed the steady-state properties of a multi-dimensional diffusion process that approximates certain queueing networks with customer abandonments. As an undergraduate, Josh had the opportunity to intern at several large U.S. companies including Intel and Caterpillar.

Christina Robinson Scherrer

Second Year ARCS Scholar

Ph.D.Candidate, Industrial & Systems Engineering
Imlay Foundation, Inc. ARCS Fellowship



Christina earned her Bachelor and Master's degrees in Industrial Engineering at Georgia Tech in 1999 and 2001. While a Ph.D. student, she was awarded the American Society of Engineering Education Fellowship from the Department of Defense and was chosen as the outstanding female graduate student at Georgia Tech in 2003. Christina's dissertation research, with Dr. Paul Griffin, is on efficient allocation of scarce resources in health care policy. She took last year off from her studies to teach high school math full-time in Fulton County. Outside of school, she enjoys spending time with her husband, working in various church activities, doing volunteer work and gardening.

Georgia Institute of Technology

Shannon L. Stott

Fifth Year ARCS Scholar

**Ph.D. Candidate, Mechanical Engineering
Graves Foundation ARCS Fellowship**

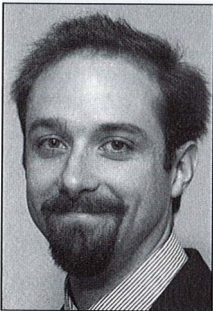


Shannon earned a B.S. degree in Mechanical Engineering from the University of New Hampshire in 1997, followed by a Masters Degree in 1999 from the University of Illinois. Her Ph.D. thesis research at Georgia Tech is in the field of bioengineering with a focus on cryopreservation. Under the advisement of Dr. Jens Karlsson, she is utilizing theoretical and experimental methods to elucidate the mechanisms of damage during the preservation of cells and tissues. This year, Shannon received the Science Applications International Corporation Best Student Paper Award, Ph.D. division, for her recently published work on modeling intercellular ice propagation during cryosurgery. When she isn't freezing cells, Shannon enjoys gardening and volunteering with Habitat for Humanity's "Women Build" program.

Patrick W. Yaner

Second Year ARCS Scholar

**Ph.D. Candidate, College of Computing
Scientific-Atlanta Foundation ARCS Fellowship**



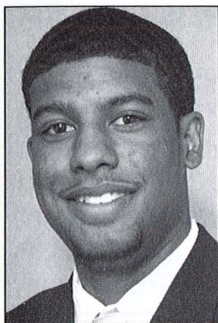
Patrick graduated from North Carolina State University cum laude with B.S. degrees in both Applied Mathematics and Computer Science. He is currently studying artificial intelligence and cognitive science in his pursuit of his Ph.D. Patrick has worked at the Naval Surface Warfare Center in Dahlgren, Virginia, and more recently studied image retrieval techniques for medical images at the National Library of Medicine in the Lister Hill National Center for Biomedical Communications. Patrick's research at Georgia Tech is focused on engineering design and redesign, and specifically how to produce computer software capable of conceptual design of mechanical devices by way of analogy to existing designs.

Morehouse College

Michael L. Adams II

First Year ARCS Scholar

**Senior, Biology Major
ARCS Membership Scholarship**

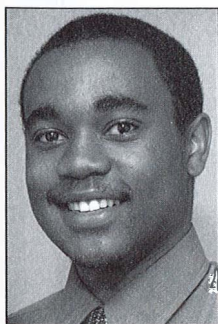


Michael is a senior Biology major from Nashville, Tennessee. He is on the Dean's List and a member of the National Society of Collegiate Scholars, Beta Kappa Chi Scientific Honor Society and Golden Key Honor Society. During the summer of 2003, Michael participated in research at Northwestern University studying NMR modeling among protein-protein interacting transcriptional factors HBP-1 SID and Sin3 PAH2. He currently serves as President of Alpha Epsilon Delta, a pre-medical honor society at Morehouse. Michael plans to pursue a M.D. degree and specialize in cardiology or orthopedics. In his free time, Michel enjoys golf and basketball.

Adewole S. Adamson

Second Year ARCS Scholar

**Senior, Biology Major
ARCS Century Scholarship**



Ade is a Biology and French double major pursuing a career in academic medicine. He is on the Dean's List, and a member of the National French Honor Society, Golden Key, Beta Kappa Chi and Alpha Epsilon Delta. As a member of MARC/U*STAR, he conducts research on stem cells at the Morehouse School of Medicine. In previous summers, he has done research at the Jackson Laboratory in Maine and Rockefeller University in New York. Ade has also been selected as a Presidential Fellow. When away from science, he is an active delegate in the International Affairs Society and plays on a competitive ice hockey team.

Morehouse College

Adolph W. Flowers

Second Year ARCS Scholar

Senior, Biology Major

Georgia-Pacific Foundation ARCS Scholarship



Adolph was born in Maryland and grew up in Chesapeake, Virginia. He is a senior at Morehouse College where he is majoring in Biology with a minor in Public Health and Mathematics. He is currently pursuing a joint degree, a M.D. in Medicine and a Ph.D. in Epidemiology. Adolph's most recent research was conducted at the National Center for Injury

Prevention and Control in the CDC and concerned "Seasonal Patterns of Suicide in the United States, 1991-2001." He currently serves as Vice President of the International Golden Key Honor Society and Secretary of Beta Kappa Chi.

Brandon M. Knockum

First Year ARCS Scholar

Junior, Biology Major

ARCS Membership Scholarship



Brandon is from New Orleans, Louisiana. During his tenure at Morehouse College, he has been on the Dean's List as well as serving as an active member of the National Society of Collegiate Scholars, the Health Career Society and the Bonner Scholars. Brandon has also participated in summer research under the MBRS-Rise program at Morehouse School of Medicine. He is now

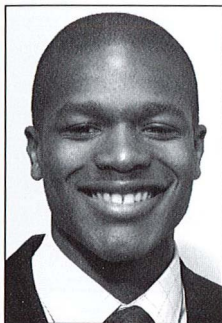
continuing his research under the MARC/U*STAR program in Morehouse's Cardiovascular Research Institute. Brandon's current research project focuses on the expression of Slit/Robo genes in co-cultured endothelial cells. He also participates in other activities which include volunteering at an after school program.

Morehouse College

Nicholas A. Payne

First Year ARCS Scholar

**Junior, Chemistry & Chemical Engineering Major
Hach Scientific Foundation ARCS Scholarship
in partnership with Denver Chapter of ARCS**

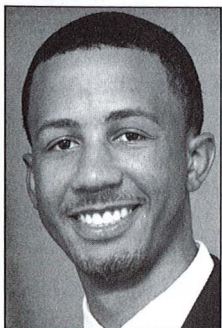


Nicholas is a native of Memphis, Tennessee with a dual degree major in Chemistry and Chemical Engineering. As a fourth year student, he has been recognized with several honors including induction into the Beta Kappa Chi Scientific Honor Society, Pi Mu Epsilon Mathematical Honor Society, and Golden Key Honor Society among others. He has served in a leadership capacity as Vice President of the Morehouse College Mathematical Society. Nicholas' most notable research experiences thus far have been at NASA's Marshall Space Flight Center and Langley Research Center.

James C. Pendleton

Second Year ARCS Scholar

**Senior, Biology Major
Synovus ARCS Scholarship**



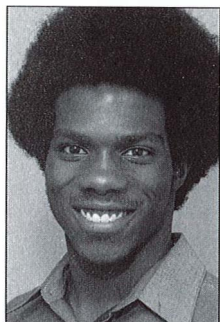
James is a member of the Dean's List and Honor Roll, Beta Kappa Chi Scientific Honor Society, Alpha Epsilon Delta, a national pre-medical honor society, and Minority Access to Research Careers (MARC). Recent research projects include investigating nucleocytoplasmic trafficking at Rockefeller University in New York and characterizing proteins involved in a particular subset of spastic paraplegia at the National Institute of Neurological Disorder and Stroke. At Morehouse, he serves as the College Campus News Editor and President of Omega Psi Phi Fraternity. After graduation, James plans to pursue a M.D./Ph.D. degree specializing in neuroscience.

Morehouse College

James D. Whitfield

First Year ARCS Scholar

**Junior, Mathematics & Chemistry Major
Hach Scientific Foundation ARCS Scholarship
in partnership with Denver Chapter of ARCS**

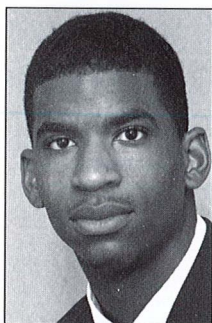


James is a Mathematics and Chemistry major at Morehouse College. This past summer, he conducted mathematical research in the area of game theory at the University of Maryland. His research interest revolves around mathematics and the mathematics of chemistry. James has received several mathematics awards at Morehouse and is a Putnam competitor. He is a member of the National Society of Collegiate Scholars. This summer he hopes to intern as a member of the McNair Scholars program with the Morehouse Chemistry department. In his free time, James is an enthusiastic chess player.

David K. Woods

First Year ARCS Scholar

**Senior, Biology Major
ARCS Membership Scholarship**

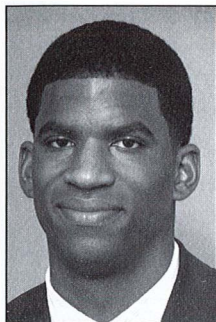


David is on the Dean's List and Honor Roll and a member of the National Society of Collegiate Scholars, Golden Key International Honor Society and a participant in the Morehouse School of Medicine/MBRS research program. In addition, he is a member of Beta Kappa Chi Scientific Honor Society and Alpha Epsilon Delta, a national pre-medical honor society. During the summer of 2003, his research projects focused on the role of AMP-activated protein kinase in regulating cellular metabolism at Yale School of Medicine. This past summer, he conducted research in the lab of Dr. Guoqiang Jiang in the department of Metabolic Disorders at Merck Pharmaceuticals. David's project focused on understanding the molecular mechanism responsible for elevated glucagon levels in ob/ob mice in vivo. At Morehouse, he serves on the General Laws Committee Board and Senator for the Morehouse College Health Careers Society.

Morehouse College

Michael C. Woods

**First Year ARCS Scholar
Senior, Biology Major
ARCS Membership Scholarship**

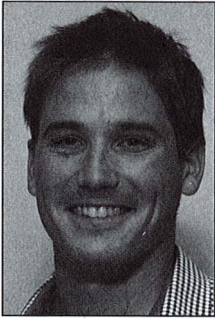


Michael is a resident of Middletown, Delaware and has lived in numerous locations along the East Coast. He is a member of the Golden Key International Honor Society, National Society of Collegiate Scholars, Beta Kappa Chi Scientific Honor Society and Alpha Epsilon Delta, a pre-medical honor society where he serves as Historian. In addition to being an Honor Roll student and Dean's List scholar, Michael is a National Institute of Mental Health (NIMH)-COR Fellow. His summer research experiences include working in an electro-physiology lab at Yale School of Medicine characterizing the morphological effects of delayed auditor evoked responses. He also worked in a neuro-toxicology lab at the National Institute of Mental Health identifying optimally performing commercial micro-column chromatography tips for protein purification. During the school year, Michael conducts research in the psychology department investigating the academic underachievement of African American college students. He enjoys reading autobiographies, volunteering for community service projects and participating in intramural sports.

The University of Georgia

Matthew H. Bonds

**First Year ARCS Scholar
Ph.D. Candidate, Ecology
ARCS Membership Fellowship**



Matt began research in environmental economics as an undergraduate at Francis Marion University where he graduated magna cum laude with a B.A. in Economics. His primary interest has since been the relationship between individual behavior and its cumulative, and sometimes complex, consequences for society; i.e.; self vs. group interest. Matt received a Ph.D. in Economics from the University of Georgia in 2003, where he is now an Odum Fellow and Ph.D. candidate at the Institute of Ecology. Under the guidance of Dr. Pejman Rohani, he uses game theory to model the role of human behavior on the evolution of infectious diseases. Sometimes Matt volunteers for Habitat for Humanity and ponders whether such behavior would fit into his models.

Pamela J. Bonner

**Third Year ARCS Scholar
Ph.D. Candidate, Microbiology
Sartain Lanier Family Foundation ARCS Fellowship**



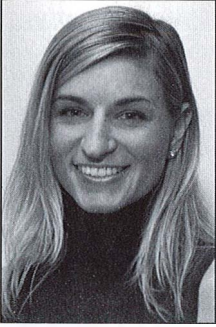
Pam, a native of Portsmouth, Rhode Island, received her B.S. degree in Molecular and Cell Biology from the University of Connecticut in 2000. As a University Scholar, she completed the most prestigious undergraduate program at the University. Pam was awarded a Presidential Fellowship to pursue a doctorate in Microbiology at UGA. Under the direction of Dr. Lawrence Shimkets, she is using *Myxococcus xanthus* as a model system to understand how zinc-metalloproteases modulate the extracellular matrix which surrounds the cells. In mammals, unchecked degradation of the extracellular matrix by similar proteases has been linked to arthritis and cancer. Pam's career goal is to be a professor at a research university. In her free time, she enjoys reading, watching sports and spending time with friends.

The University of Georgia

Vivien G. Dugan

First Year ARCS Scholar

Ph.D. Candidate, Veterinary Parasitology ARCS Century Fellowship



Vivien is from New York City and earned a B.S. degree in Biology in 1997 from Union College, Schenectady, New York, with minors in Chemistry and English. In 2000, she graduated from UGA with a M.S. in Veterinary Parasitology. Vivien is currently pursuing a doctorate in the same discipline at the Southeastern Cooperative Wildlife Disease Study/Department of Infectious Diseases.

Vivien's research focuses on the epidemiology of zoonotic tick-borne pathogens, specifically *Anaplasma phagocytophilum*, the agent of human granulocytic anaplasmosis. Her projects include utilizing sentinel white-tailed deer in concurrence with GIS analysis to predict human risk of *A. phagocytophilum* across the Southeastern United States and detection of molecular variations within known isolates.

Sarah Whitehead Finch

Second Year ARCS Scholar

Ph.D. Candidate, Genetics Burtchaell Foundation ARCS Fellowship



Sarah graduated from Miami University of Ohio with a major in Microbiology and a minor in Medical Sociology. Her dissertation research at the University of Georgia focuses on the investigation of the involvement of the SMN, survival of motor neurons, protein, in small nucleolar ribonucleoprotein (snoRNP) complex assembly.

The deletion or mutation of the SMN1 gene causes spinal muscular atrophy, which is the leading cause of genetic death in children. Sarah is the recipient of the Miami University Undergraduate Research Award, NIH Genetics Training Grant and the UGA Graduate School Dissertation Completion Award. She plans to begin her career in biotechnology or pharmaceutical research and development. In her free time, Sarah enjoys reading and traveling and spending time with her husband, David.

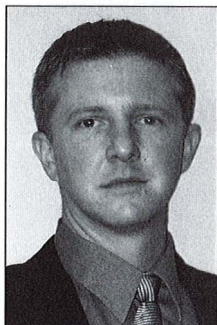
The University of Georgia

Alex K. Harris

First Year ARCS Scholar

Ph.D. Candidate, Clinical Pharmacy

Michael J. Kuse Memorial, Carol Ehlen & Lynn Ehret ARCS Fellowship



Alex received a B.A. degree in Biochemistry from LaGrange College in LaGrange, Georgia. He is currently in the Clinical and Experimental Therapeutics Program at the University of Georgia College of Pharmacy in the laboratory of Dr. Adviyee Ergul. Alex is a member of the American Heart Association and the North American Vascular Biology Organization. He was awarded an American Heart Pre-doctoral Fellowship to pursue a Ph.D. Currently, his research focuses on the role of endothelin-1 and matrix metalloproteinases in cerebral microvascular remodeling. After graduation, Alex plans to attend Physician's Assistant School at the Medical College of Georgia then do clinical research involving diabetes and cardiovascular complications. In his spare time, Alex enjoys fishing, carpentry and spending time with his wife and son.

Kimberley T. Hill

Second Year ARCS Scholar

Ph.D. Candidate, Pharmaceutics

Harry & Caroline Gilham Foundation ARCS Fellowship



Kimberley graduated cum laude from the University of Georgia with a B.S. degree in Microbiology in 1997. Currently, she is a doctoral candidate in the Department of Pharmaceutical and Biomedical Sciences working under the direction of Dr. Catherine A. White. Her dissertation project focuses on investigating approaches for improving the physiological disposition of therapeutic proteins; i.e.; chemical modification and controlled drug release systems. While in graduate school, Kimberley has received the University of Georgia Graduate School Dissertation Completion Assistantship Award and the Sloan Fellowship in association with the Alfred P. Sloan Foundation.

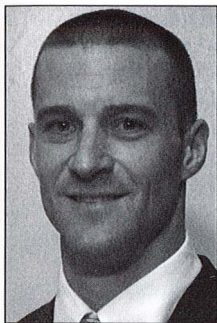
The University of Georgia

Edward T. Mahoney

First Year ARCS Scholar

Ph.D. Candidate, Exercise Science

Teed Poe & Mary O'Connor ARCS Fellowship



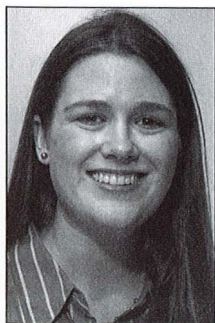
Edward, a native of North Tonawanda, New York, earned his B.S. in Chemistry at Ithaca College in 1995. He continued his education at UGA in the field of Exercise Science and completed his Masters degree in 1998. He then worked for three years at the Miami Project to Cure Paralysis under the guidance of Dr. Patrick Jacobs, whose research focused on the effects of physical activity in individuals with spinal cord injury, (SCI). Edward is currently studying under Dr. Gary A. Dudley, and they are collaborating with Shepherd Center in Atlanta to ultimately improve the health of those aging with SCI. Edward's dissertation research will involve contraction-induced muscle injury in SCI patients, specifically focusing on whether repeated bouts of electrically-stimulated exercise can protect the muscle from subsequent injury.

Rebecca L. Tomlinson

First Year ARCS Scholar

Ph.D. Candidate, Genetics

Weiss Family ARCS Fellowship



Rebecca graduated from Louisiana State University in 2001 with B.S. degrees in Biochemistry and Psychology and minors in Chemistry and Zoology. At UGA, she is pursuing a Ph.D. in Genetics under the direction of Michael and Rebecca Terns. Her work is focused on understanding the assembly and trafficking of the enzyme, telomerase. This enzyme is active in over 90% of human cancers but is inactive in the majority of adult human somatic tissues, making it a promising anti-cancer target. Rebecca is the recipient of the NIH training grant in Genetics. Upon graduation, she hopes to pursue a career in the pharmaceutical industry. Eventually, Rebecca would like to teach undergraduates in a small university setting.

ARCS Atlanta Chapter Membership

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The Board of Directors of the Atlanta Chapter of *Achievement Awards for College Scientists* extends special appreciation to the following individuals whose time and talents contributed to the success of the 13th annual celebration.

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Emory University
Georgia Institute of Technology
Morehouse College
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and

Suzanne Baker, Vince Conticello, Kim Smith – Emory University
Caroline Wood, Mary Alice Isele – Georgia Institute of Technology
Linda Nelson – Morehouse College
Becky Ayer – University of Georgia

ARCS Scholarship Awards Luncheon Committee
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