
A R C S



FOUNDATION INC

**Achievement Rewards for College Scientists
Atlanta Chapter**

Sixth Annual
Scholars Awards Luncheon

October 21, 1997

Greetings to our guests:

The Atlanta Chapter of the ARCS Foundation is pleased to present 11 scholars for 1997-98. These students have been selected for this honor by their schools, Emory University, Georgia Institute of Technology, and Morehouse College, for their outstanding achievements in their academic careers.

Former scholars have made outstanding contributions to the body of scientific knowledge. Some examples include:

- Lowell Lamb, who was part of the team that discovered Carbon 60, a new class of molecule.
- Kim Polese, who headed the team that invented Java, and was recently featured in Time magazine as one of the most influential people in America.
- Wolfgang Berger, who heads the Scripps Institution of Oceanography and is one of the world's most respected geoscientists.

With the high cost of fees, books and living expenses, a degree requires financial assistance for most students. The need for scientists, engineers, and doctors has never been greater. As we approach the 21st century, we can have a direct effect on the future of our country and our region by increasing our support of these gifted scientific scholars.

**The Atlanta Chapter of ARCS is very grateful to its
Members and Donors for helping realize its mission.**

**Summa Cum Laude
BellSouth Telecommunications, Inc.
Northern Telecom, Inc.**

**Magna Cum Laude
Ernst & Young - Susan P. Clark
Sutherland, Asbill & Brennan - Dorothy B. Franzoni**

**Cum Laude
The Graves Foundation**

ARCS Mission

The ARCS Foundation is dedicated to helping meet our country's need for scientists and engineers by providing scholarships to academically outstanding students who are United States citizens in need of financial assistance to complete their higher education, thereby contributing not only to the advancement of science, but also to the material and intellectual welfare of all people.

ARCS Facts

The ARCS Foundation, Inc., founded in Los Angeles in 1958, recognizes that America's future rests with the young men and women who will invent answers to the scientific and technological challenges we face today. Since its inception, ARCS has given over **\$25,000,000** to nearly **7000** of the brightest students in natural science, medicine and engineering. All members are volunteers and **100% of all donations go directly to scholarships.**

Only five years old, the Atlanta Chapter has **107** members and presents scholarships to students from Emory University, Georgia Institute of Technology and Morehouse College. Since its inception, it has awarded **\$231,000** including **\$55,000** for 1997-98. In addition to its fund raising efforts, the Atlanta Chapter conducts a program of education in scientific issues for its members.

All scholarship recipients must be U.S. citizens, have high scholastic standing, demonstrate real financial need, and express the goal of making a contribution to their community and society in general. The scholars are selected by the recipient schools without regard for race, gender or religious preference. Former scholars head major corporations, contribute significant research in a variety of fields, and help keep America competitive in the world of science and technology.

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K. Maier
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Special Thanks

Dr. Richard Koehler,
Executive Director, Rialto Center for the Performing Arts

Cary & Nancy Smith
delectables restaurante & catering

Buckhead Printing
David and Kathryn Woodworth

About our Guest Speaker

Larry F. Hodges is Associate Professor in the College of Computing and Associate Director for Industrial Relations in the Graphics, Visualization and Usability Center at Georgia Tech. Dr. Hodges' interests are in software and algorithm development, experimental quantification, and application development for virtual reality systems.

One of the major strengths of Dr. Hodges' work has been the development of interdisciplinary research teams for the development and analysis of virtual reality applications. Examples of current projects include the development of a real-time, 3-D geographic information system, the virtual reality gorilla exhibit, uses of virtual environments for exposure therapy, and the creation and testing of information visualization tools in immersive environments.

PROGRAM

Welcome

Patricia S. Leake, President
Atlanta ARCS Chapter

Awards Presentation

Presenter

Dr. Donald G. Stein
Vice Provost & Dean
Emory University

Dr. Michael Thomas
Provost & Vice President
for Academic Affairs
Georgia Institute of Technology

Dr. Walter E. Massey
President
Morehouse College

Ms. Carolyn Palmer
Director of PCN Sales
Northern Telecom

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President and CEO
BellSouth Telecommunications

Scholars

Michael A. Brodney
Daniel R. Marshall
Kevin M. Williams

Stacey A. Dixon
Staci A. Edlund
Ashley J. James

Leander Cannick
Nathan C. Rowland
Walter F. Cato

J. Jeffrey McAtee
Emory University

David M. Wootton
Georgia Institute of Technology

Speaker

Dr. Larry F. Hodges
Associate Professor of the College of Computing
Georgia Institute of Technology

Luncheon - Lobby

THE ATLANTA SCHOLARS Emory University



Michael A. Brodney

Ph.D. Candidate, Chemistry

Michael received his B.S. degree in Biology/Chemistry at Skidmore College where he received many honors including Scholar Athlete of the Year, GTE Academic All American, and the Fahey Award for Outstanding Chemistry Research. While at Emory he has developed new methodologies in synthetic organic research, has gained expertise in spectroscopic instrumentation and chemical information retrieval, and has trained others in the operation of Emory's Gas Chromatography/Mass Spectrometer. He has published several articles in top level academic journals and has also presented papers at American Chemical Society meetings. His career goal is to establish an academic position geared toward the development of synthetic methodology and its application to the synthesis of biologically active natural products.



Daniel R. Marshall

Ph.D. Candidate, Organic Chemistry

Daniel is in his fourth year of graduate study in the research group of Dr. Lanny Liebeskind. Prior to Emory, Daniel completed three summers of undergraduate research at Colorado State University where he received his B.S. degree in Chemistry. He then spent two years as an Assistant Research Scientist at Bristol-Myers Squibb. He has five papers in print to date and his present research may generate several more. His research interest and career goal is the development of novel synthetic methodologies and their application toward the synthesis of biologically relevant molecules.



Kevin M. Williams

Ph.D. Candidate, Chemistry

Kevin entered Emory's Ph.D. program in Chemistry after graduating summa cum laude in Chemistry and Mathematics from Clinch Valley College in 1994. His work focuses on the important platinum anti-cancer drugs. His studies involve investigations by NMR methods and computations to analyze chemical structures. Kevin has pioneered methods to assess the crucial role of solvent in explaining the structure/conformations observed in solution. These important studies are presently being prepared for publication. Kevin has also helped in the development and testing of a collaborative software project involving the Math/Computer Science Department. He has helped both new and advanced students in mastering software and computational methods. Kevin is focusing now on obtaining his Ph.D., but his future plans may include research in industry.

Georgia Institute of Technology

Stacey Angela Dixon

Ph.D. Candidate, Bioengineering

Stacy received her B.S. degree in Mechanical Engineering from Stanford University in 1993 and her M.S. degree in Mechanical Engineering from Georgia Tech in 1995. The focus of her doctoral research is soft tissue mechanics in which she compares the mechanical properties of tissue engineered blood vessels and healthy coronary arteries, using statistically valid comparisons. She has received numerous academic awards and scholarships, including the National Science Foundation Engineering Fellowship, the Georgia Tech President's Fellowship, the American

Society of Mechanical Engineers Graduate Teaching Fellowship and the Society of Women Engineers Outstanding Graduate Engineer Scholarship. She is immediate past-president of the Black Graduate Students Association and a teen advisor to the St. Anthony's Teen Club Ministry. She plans to become a corporate research scientist and then seek an academic faculty position.



Staci A. Edlund

Ph.D. Candidate, Mechanical Engineering

Staci received her Bachelor and Master of Science degrees in Mechanical Engineering from the University of California, Berkeley. While an undergraduate, she held a six-month internship at the New United Motors Manufacturing, Inc. automobile assembly plant in quality control engineering. Her current research is in the area of fluid dynamics. She uses nine small jets of air formed from a piezoelectric actuator operating at high frequencies to manipulate a larger jet of air. She is studying the interaction between these jets to enhance mixing of a fuel and oxidizer in the

combustor of a gas turbine engine. She is the recipient of a National Science Foundation/GEE Fellowship. Staci's career goal is a research and teaching position in academia.



Ashley J. James

Ph.D. Candidate, Mechanical Engineering

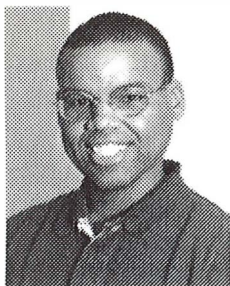
Third Year ARCS Scholar

Ashley graduated with honors from the University of Florida in 1990 with a B.S. degree in Mechanical Engineering. While at Florida she was a member of the honor societies Tau Beta Pi and Pi Tau Sigma. Upon graduation Ashley worked for Westinghouse Electric Corporation as a power plant performance analyst. Her area of expertise is interfacial fluid dynamics. Her thesis research is an analysis of the breakup of a vibrating liquid droplet, which has applications in heat exchanger design. Honors at Georgia

Tech include the high score on Ph.D. qualifying exams and Who's Who Among Student in American Colleges and Universities. Ashley is preparing for a career in academia.



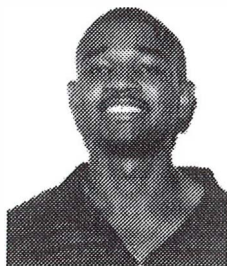
Morehouse College



Walter F. Cato

Senior, Biology Major

Planning to pursue an MD or MD/Ph.D. in clinical research, Walter has been working since his sophomore year in Dr. David Cooke's Cancer Research Laboratory at Morehouse. He has also carried out molecular studies on a gene believed to be involved in the development of Medulloblastoma, under the direction of Dr. Corey Raffel in the Department of Neuro-Oncology at the Mayo Clinic. In addition, at Bryn Mawr College he studied cell cycle kinetics in the neuroepithelial cells of chick embryos. Walter is a member of the Morehouse Research Careers Club and a scholar in the MARC Undergraduate Research Program. He is a member of the Alpha Epsilon Delta National Premedical Honor Society and the Golden Key National Honor society. He plans to pursue an MD or MD/Ph.D. degree. He currently serves as a youth mentor, and he loves to cook.



Leander Cannick

Junior, Biology Major

Leander has demonstrated a commitment to both academics and to the community by maintaining a high GPA while at the same time volunteering with Hands on Atlanta, Emerge, the Harland Boys and Girls Club and Grady Hospital. He has volunteered at Grady since freshman year, working in the Hughes Spaulding Children's Hospital and the Surgery and Intensive Care Clinic. To acquire research training, he participated in Summer research programs at Dartmouth Medical School and at Sloan-Kettering Cancer Institute. He plans to obtain a MD/Ph.D. degree and pursue a career in academic medicine.



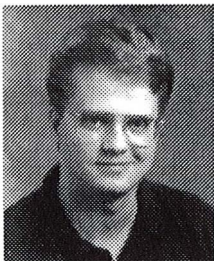
Nathan C. Rowland

Senior, Biology Major

Second Year ARCS Scholar

Nathan's education at Morehouse has been enriched by participating in both premedical and research oriented summer programs, including the Prefreshman Summer Science Institute at Morehouse, the UNCF Summer Science Institute at Fisk University, and summer research programs at Yale University Medical School and the National Institutes of Health. At Yale, he worked in a nuclear cardiology laboratory on a project to detect myocardial deformation of in vivo canine preparations. At NIH he worked on diagnostic procedures for detecting scrapie, an agent which caused a transmissible spongiform encephalopathy. Nathan plans to pursue a MBA/MD/Ph.D. and hopes to own a biomedical company.

1997 NORTHERN TELECOM SCHOLAR

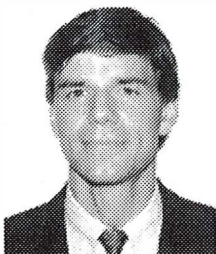


John Jeffrey McAtee

Ph.D. Candidate, Chemistry

Jeffrey is in his fourth year of graduate study in the research group of Dr. Dennis Liotta. For the past year he has concentrated on the study of selective fluorination of organic molecules, specifically biomolecules. Because fluorine can increase biological activity and decrease oxidative metabolism of drug molecules, this research promises to lead to drugs that may be given in smaller doses due to their increased potency and longer duration in the body. Jeffrey is currently working on the synthesis of new antibiotic drugs for drug resistant bacteria. His work has been presented at international conferences including one in Sydney, Australia this year. He expects to graduate this year and to obtain a postdoctoral position in the area of cancer research.

1997 BELLSOUTH TELECOMMUNICATIONS, INC. SCHOLAR



David M. Wootton

Georgia Institute of Technology

Ph.D. Candidate, Mechanical Engineering

Second Year ARCS Scholar

David received a B.S. degree with distinction in Mechanical Engineering from Cornell University in 1987. He received his M.S. degree from the Massachusetts Institute of Technology in 1990. His Ph.D. research is on the role of fluid mechanics and mass transfer in arterial thrombosis, an acute condition that can cause heart attack or stroke. His academic awards include an A.S. M.E. Outstanding Junior award at Cornell, and National Science Foundation graduate fellowship at M.I.T., and a President's fellowship from Georgia Tech. David has worked for General Motors as a crash worthiness engineer with air bag sensors. He has also worked as an environmental noise and vibration consultant. During his high school and undergraduate years he worked in violin repair and restoration. He looks forward to a career in teaching and research.