



# ARCS FOUNDATION, INC.

Achievement Rewards for College Scientists  
Atlanta Chapter

Fifth Annual  
ARCS Awards Luncheon

October 30, 1996

# ARCS CREED

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

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**ARCS FOUNDATION, INC.  
ACHIEVEMENT REWARDS FOR COLLEGE SCIENTISTS**

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 the answers to the scientific and technological challenges we face as a nation today.

Its 1,477 members in 12 chapters throughout the United States provide scholarship funds for academically outstanding United States citizens who are pursuing higher educations in the fields of natural science, medicine and engineering.

ARCS scholarship funds have found their way to more than 61 college and university campuses from Massachusetts to California. The Atlanta Chapter contributes to scholarships for students at Emory University, Georgia Institute of Technology and Morehouse College.

**ARCS FACT SHEET**

	LOCAL	NATIONAL
Founded .....	1992 .....	1958
Members .....	105 .....	1,477
Scholarships Granted .....	35 .....	6,628
Scholarship Dollars .....	\$176,000 .....	\$22,705,068
Schools Supported .....	3 .....	61
Total Chapters .....	1 .....	12

## ARCS FOUNDATION ATLANTA CHAPTER MEMBERS

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Carol Teem  
Camille Yow

## MASTER OF CEREMONIES

**Mr. William Liss**

Financial & Legal Editor, WXIA-Television News. (NBC), Atlanta  
Emmy Award Recipient, Southeast Chapter of  
the National Academy of TV Arts & Sciences

## SPECIAL THANKS

**Northern Telecom**

**BellSouth Telecommunications, Inc.**

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## **PROGRAM**

## **WELCOME**

**Frances B. Graves, President**  
Atlanta ARCS Chapter

**Dr. Carl V. Patton, President**  
Georgia State University

## **SPEAKER**

**Dr. Dennis J. Selkoe**  
Professor of Neurology and Neuroscience  
Harvard Medical School

**Mr. William J. Liss**  
Financial & Legal Editor, WXIA-TV News

## **AWARDS PRESENTATIONS**

**Dr. Dennis Liotta**  
Vice President for Research  
Emory University

**Dr. Gary B. Schuster**  
Dean of College of Sciences  
Georgia Institute of Technology

**Dr. Walter E. Massey**  
President  
Morehouse College

**Presentation of**  
**1996 Northern Telecom Scholarship**

**Presentation of**  
**1996 BellSouth Telecommunications, Inc. Scholarship**  
Mr. Jere A. Drummond, President & CEO  
BellSouth Telecommunications, Inc.

## **LUNCHEON - LOBBY**

# 1996 ARCS SCHOLARS

## EMORY UNIVERSITY

Gregory A. Bydlinski

Michael J. Rachita

Paige Newton Vinson

## GEORGIA INSTITUTE OF TECHNOLOGY

Stacey A. Dixon

Staci A. Edlund

Ashley J. James

## MOREHOUSE COLLEGE

Nathan C. Rowland

Jason K. Sello

Ali M. Thomas

## 1996 NORTHERN TELECOM SCHOLAR

J. Jeffrey McAtee

Emory University

1996

## BELLSOUTH TELECOMMUNICATIONS, INC. SCHOLAR

David M. Wootton

Georgia Institute of Technology

## SPEAKER



**Dr. Dennis J. Selkoe**  
Professor of Neurology and Neuroscience  
Harvard Medical School

Dr. Selkoe is a graduate of Columbia University and the University of Virginia School of Medicine. He completed a residency in neurology at the Harvard/Longwood Neurology Program in Boston and a four year fellowship in biochemistry and neuronal cell biology at Harvard Medical School. In 1978, he founded an independent research laboratory dedicated to applying biochemical and molecular techniques to the study of Alzheimer's Disease. In 1982, he and his colleagues discovered a method for isolating the tangles in the brain

that give the first hints of Alzheimer's and made revolutionary findings that led to the tests now being used to screen for Alzheimer's. Dr. Selkoe's contributions have been internationally recognized and have led to his receiving, among other honors, the Leadership and Excellence in Alzheimer's Disease Award from the National Institutes of Health. He has written and lectured extensively and his laboratory has become a center for training and research on Alzheimer's disease for scientists from around the world.

## THE ATLANTA SCHOLARS Emory University



**Gregory A. Bydlinski**  
Ph.D. Candidate, Chemistry

Greg received his undergraduate degree in Chemistry from Hamilton college in New York and his Masters Degree in Synthetic Organic Chemistry from Emory. He worked for 8 years in the pharmaceutical industry before returning to Emory to pursue his Ph.D. degree. As a process research chemist with over 90 pilot plant batches to his credit, he has developed a wide array of technical and administrative talents necessary for successful bench to pilot plant scale-up regarding the synthesis of fast-track drug candidates. Upon the completion of his degree, he plans to work as a process research or medicinal bench

chemist in an environment that nurtures the creative mind and stresses ecological restraint.



**Michael J. Rachita**  
Ph.D. Candidate, Organic Chemistry

A native of Akron, Ohio, Mike explored the use of transition metal complexes as a technique for controlling regio- and stereochemistry in radical reactions while pursuing his undergraduate degree in Chemistry from The College of Wooster, Wooster, Ohio. Since 1992, he has continued his studies at Emory. Under the guidance of Professor Lanny S. Liebeskind, he is currently doing research in the development of organometallic methodology and the investigation into reaction mechanism in the preparation of a novel class of biologically active metallaquinones. His skills include extensive use

of Vacuum Atmosphere Dryboxes for handling and manipulating air sensitive compounds. He is married and plans to enter the academic arena upon graduation.



**Paige Newton Vinson**  
Ph.D. Candidate, Analytical Chemistry

Paige is receiving an ARCS scholarship for the second year. A graduate of the University of South Alabama, with a Bachelor of Science degree in Chemistry, she plans a future career continuing her research of applying analytical chemistry methods to neuroscience/biological questions. She has mastered all aspects of HPLC with electrochemical detection and has collaborated on numerous publications in the field with her advisor, Dr. Joseph B. Justice, Jr. Paige is the first author on the Analytical Chemistry paper on one minute sampling - the state of the art in microbiolysis monitoring. In addition, she is experienced in installing hardware, software, and in writing short data collection and calculation programs for personal computers.

## Georgia Institute of Technology



**Stacey Angela Dixon**  
Ph.D. Candidate, Biomechanics

Hailing from Washington, D.C., Stacey received a Bachelor of Science degree in Mechanical Engineering from Stanford University in 1993 and her Master of Science degree from Georgia Tech in 1995. She is currently pursuing her Ph.D. degree with a major in bioengineering. She is specializing in soft tissue mechanics and her doctoral research will compare the mechanical properties of tissue engineered blood vessels and healthy arteries. She is a recipient of 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. After obtaining her doctorate, Stacey will seek a position as a research faculty member or as a corporate research scientist.



**Staci A. Edlund**  
Ph.D. Candidate, Mechanical Engineering

Returning for the second time as an Atlanta ARCS scholar, Staci received her Bachelor of Science and Master of Science degrees in Mechanical Engineering from the University of California at Berkeley. While there, she was first awarded an ARCS Foundation Scholarship in 1992 by the Northern California Chapter of ARCS. During that time, she gained engineering experience from a six month internship at New United Motors Manufacturing, Inc., a joint venture assembly plant for Toyota and General Motors. She received the Charles Mills Gayley Fellowship in 1993 and the Eugene Cota-Robles Fellowship in both 1993 and 1994. Her field of study is fluid mechanics and her current research is in the area of small-scale mixing. She is using piezoelectric actuators to enhance mixing of a fuel and oxidizer for application in the combustor of a gas turbine engine. Upon degree completion, she desires a career in academia and research.



### **Ashley J. James**

#### **Ph.D. Candidate, Mechanical Engineering**

Another second year ARCS Scholar, Ashley graduated with honors from the University of Florida in 1990 with a Bachelor of Science degree in Mechanical Engineering. While at Florida she became a member of the honor societies Tau Beta Pi and Pi Tau Sigma. Ashley then worked for Westinghouse Electric Corporation in their steam turbine engineering department. Her primary responsibility was the prediction of power plant performance. In 1993 she enrolled in the Ph.D. program in mechanical engineering at Georgia Tech. Her area of expertise is interfacial fluid dynamics. Her research is an analysis of the breakup of a vibrating liquid droplet. This project

has applications in heat exchanger design. Ashley will pursue a career in academia upon graduation.

## **Morehouse College**



### **Nathan C. Rowland** **Junior, Biology Major**

Chris is a Biology major and English minor who aspires to a career in medicine. Maintaining a GPA of 3.92/4.0, he has sought to enrich his education by participating in both pre-medical and research-oriented programs. Last summer, he took part in a research program at Yale University Medical School where he worked in a nuclear cardiology laboratory on a project involving the use of sonometric crystals to calculate the regional myocardial deformation of *in vivo* canine preparations. He plans to spend the summer doing research in Zimbabwe and will pursue an MD/Ph.D program upon graduation

from Morehouse.



### **Jason K. Sello** **Senior, Biology Major**

With plans for a career in structural biology, Jason has participated in various research activities. He has studied antibody interactions with human rhinovirus-14 at Morehouse and has used x-ray crystallography in similar research at Purdue University. Most recently, he has used this technique to examine the structural features of two soluble receptor resistant poliovirus mutants with Dr. James Hogle at Harvard Medical School. Jason has been elected to membership in the Beta Kappa Chi Scientific Honor Society, is a member of the Morehouse Research Club, and a scholar in the MARC Undergraduate Research Program. He intends to pursue a Ph.D. in biophysics.



**Ali M. Thomas**  
Senior, Biology Major

Ali is a senior Biology major and Public Health Fellow from East Lansing, Michigan. Based largely on his experiences traveling in Japan, China, and the Caribbean, he plans to pursue a career in Primary Care and International Health. He currently interns at the Centers for Disease Control and Prevention, where he does research on antigenic variation between populations of *Plasmodium falciparum*, the parasite chiefly responsible for malaria deaths in humans. In 1995, Ali interned at the Georgia Division of Public Health, where he evaluated a home visitation project in DeKalb County. He has also conducted research in x-ray astronomy at the

Harvard-Smithsonian Center for Astrophysics. Ali is a member of the Student National Medical Association.

## 1996 NORTHERN TELECOM SCHOLAR



**J. Jeffrey McAtee**  
Emory University  
Ph.D. Candidate, Chemistry

Jeff graduated Summa Cum Laude from Spring Hill College in 1993 with a Bachelor of Science degree in Chemistry and Mathematics. He is an Emory University Woodruff Graduate Research Fellow. His research has focused on two major areas, Boron Neutron Capture Therapy (BNCT) and the development of polymerase inhibitors of the hepatitis C virus (HCV). In his BNCT study, Jeff has prepared a number of carboranyl nucleoside sensitizers which are currently being evaluated in animal studies

being carried out at the Brookhaven National Laboratory nuclear reactor. In his HCV work, Jeff has developed an excellent synthetic approach for preparing ribonucleoside analogs which are strong candidates for inhibiting the RNA-dependent RNA polymerase of HCV. He plans a career as a college or university professor of organic chemistry.

## 1996 BELLSOUTH TELECOMMUNICATIONS, INC. SCHOLAR



**David M. Wootton**  
Georgia Institute of Technology  
Ph.D. Candidate, Mechanical Engineering

Originally from Ithaca, New York, David received a Bachelor of Science degree with distinction in Mechanical Engineering from Cornell University in 1987. His Master of Science degree was obtained from Massachusetts Institute of Technology where he studied large space structure dynamics. Currently a Ph.D. candidate, he is focusing his research 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 and achievements include an A.S.M.E. Outstanding Junior award at Cornell, a National

Science Foundation graduate fellowship at M.I.T. and a President's fellowship from Georgia Tech. After graduation, he plans a career as a university professor teaching mechanical engineering and conducting bioengineering research.

## WHY SHOULD I GIVE THROUGH ATLANTA ARCS?

*100% of all donations go directly to scholarship without deductions for administrative overhead.* A gift to ARCS means that every dollar goes exactly where you wish. By soliciting gifts from many donors and pooling those funds, ARCS enables the University to offer a limited number of highly attractive and competitive fellowships.

## HOW DO I GO ABOUT GIVING TO ATLANTA ARCS?

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**ARCS FOUNDATION, INC. ATLANTA CHAPTER**  
and mailed to:

Nancy R. Kokko, Treasurer  
4 Harris Glen, N.W.  
Atlanta, Georgia 30327

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### I/We wish to contribute to the ARCS Foundation, Inc. Scholarship Fund

Enclosed is a tax deductible donation made out to:  
ARCS Foundation, Inc. Atlanta Chapter

\$100     \$500     \$1,500     \$3,000     \$5,000     other

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