**NSF HBCU-UP National Research Conference Planned**

Students and faculty mentors/researchers from historically black colleges and universities (HBCUs) will participate in the fifth annual National Science Foundation, HBCU-Undergraduate Program Research Conference, Feb. 26-28, on the campus of North Carolina A&T State University.

The conference is a national venue for more than 500 undergraduate students pursuing degrees in science, technology, engineering and mathematics (STEM) to present results from their recent research experiences. Conference highlights include exhibits, oral and poster presentations, networking, student and faculty breakout sessions, roundtable discussions, awards and social activities.

Dr. Joseph Bordogna, deputy director and chief operating officer of the National Science Foundation (NSF), is the opening banquet keynote speaker. Dr. Luther S. Williams, Missouri Botanical Garden

**Biology to Sponsor Life and Physical Sciences Research Symposium**

**National Human Genome Institute Director to Speak**

**Ninth Annual Life and Physical Sciences Research Symposium Featuring Dr. Francis S. Collins, Director, National Human Genome Research Institute (NHGRI)**

Thursday, February 26, 2004

N.C. A&T State University

**Schedule of Events**

8 a.m.-2 p.m. EXHIBITS: NHGRI, Sickle Cell Anemia Society Memorial Union-Exhibit Hall

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10-11:30 a.m. Poster Presentations Memorial Union-Exhibit Hall

11:30-12:30 p.m. Lunch ($10)

12:30-2 p.m. Community Forum: Dr. Francis Collins, Genomics, Medicine and Society Memorial Union-Stallings Ballroom

**Collins**

The biology department is sponsoring the Ninth Annual Life and Physical Sciences Research Symposium Thursday, Feb. 26, in Memorial Union.

The symposium provides opportunities for science faculty and students to present their research. The program also includes activities designed to enhance awareness of recent advances in science and research training opportunities for students in higher and secondary education.

This year’s theme is “The Future of Genomics Research: Implications for Increased Participation for Underrepresented Scientists.” Dr. Francis S. Collins, director of the Human Genome Research Institute, National Institutes of Health, is the keynote speaker for the plenary session and community forum. He has served as the leader of the Human Genome Project since 1993.

Collins is a physician/geneticist and a man of strong religious faith. He was raised on a Virginia farm and home-schooled until the sixth grade. He earned a B.S. degree in chemistry at the University of Virginia, a Ph.D. in physical chemistry at Yale University and a M.D. from the University of North Carolina-Chapel Hill.

After completing his residency at the North Carolina Memorial Hospital in Chapel Hill, Collins returned to Yale University Medical School as a fellow in human genetics. At that time he developed novel methods for identifying disease genes. Later, he joined the University of Michigan as a professor of internal medicine and human genetics. In collaboration with other researchers, Collins discovered a number of genes that cause diseases including cystic fibrosis, Huntington’s Disease, neurofibromatosis, multiple endocrine neoplasia type 1 and the M4 type of adult acute leukemia.

Members from diverse sectors of the community, including academic, health, industrial, science, religious and government groups, are invited to participate in the symposium and to dialogue with Collins at the community forum, which will be held 12:30-2 p.m. in Stallings Ballroom.

To pre-register or to obtain additional information about the Life and Physical Sciences Research Symposium, visit www.ncat.edu/~biology/researchsymposium9.html or call (336) 334-7908 or send an email to sympos@ncat.edu. Registration is required.
Broadband Networks . . . A New Era of Speedy Communication

When we consider that the modern commercial computer is only about 45 years old, and the personal computer came into being in the early 1980s, a 35-year-old technology seems like a technical dinosaur. Over the years most of us have used the basic analog services at home; a telephone line transmitting 64,000 (64K) bits per second for a voice call and up to 56,000 (56K) bps for data transmission. At home, data transmission is provided by the use of a modem. The modem converts an analog signal to digital to improve the reliability of the transmission.

Although sending data at a rate of 56K bps may seem fast, this translates to a transfer rate of 7,000 characters per second. No one can type an e-mail message that fast. However, for other applications, this speed is not sufficient. File transfers, database updates and color graphics — to mention a few — need much greater transfer rates.

The requirements for greater transfer speeds have led to the emergence of broadband networks. Some define broadband networks as systems that operate above T1 speeds (1.544,000 bps). To further clarify, a T1 is equivalent to 24 voice (64K bps) calls. Others may view broadband as any system that uses the Integrated Services Digital Network (ISDN) architecture and integrates Synchronous Optical Network (SONET) [fiber] into the architecture.

We find ISDN available today at the office. Internet technology at home allows consumers to continue to use a single telephone line to place a voice call and transmit data simultaneously. Modern broadband networks for home use are provided by the network carriers offering Digital Subscriber Line (DSL) services. This broadband service is for home users and office users with requirements for high-speed access and large download of data. Typical DSL service is a 23.8K bps upload speed and 672K bps down link. This works well for most users who are constantly downloading files from the Internet.

Here at N.C. A&T, we have installed a broadband network with a bandwidth speed of one gigabit (1,000,000,000) bps. This means that our current network could handle 15,625 analog voice calls at once or transmit 17,857 faxes simultaneously.

In addition to installing a broadband network, A&T is moving toward converging voice, video and data to a single infrastructure. This will allow students, faculty and staff to check phone messages via their desktop or laptop computer. Eventually, students will be able to establish on-demand video conferencing for classes or study sessions.

There are numerous other features and technologies that will be enabled due to the deployment of broadband. With this new technology, we are entering a new era of speedy communication.

The Division of Information Technology and Information Resources (ITIR) staff and students have been hard at work to implement new technologies in the campus. This article was written by Calvin Rapoport, optical access to the campus via T1 and direct at converged network.

A&T One of Three HBCUs to Receive Grant from American Legacy Foundation

North Carolina A&T State University is one of three Historically Black Colleges and Universities to receive a $1 million two-year grant from the American Legacy Foundation® aimed at reducing smoking among college students, strengthening campus smoking policies and raising public awareness in surrounding communities.

Bennett College for Women in Greensboro and North Carolina Central University in Durham are the other two HBCUs participating in the “On the Ground: Project Smoking Cessation and Prevention.” The initiative seeks to engage college students to serve as effective communicators on these issues and work with faculty and local leaders to develop resources to help reduce and prevent tobacco use in surrounding communities.

North Carolina has the nation’s largest proportion of HBCUs. If this initiative is successful, the foundation hopes to expand its work to more HBCUs. The North Carolina Institute of Minority Economic Development in Durham will administer the grant in partnership with the three participating HBCUs.

“The On the Ground” will reach the African American community through a four-pronged strategic approach:

• A broadcast media component, conducted by N.C. A&T Students will be taught to gather, analyze and communicate information about the health risks of tobacco use through the radio media.
• A peer health advocate pilot research effort, conducted by Bennett College for Women. Students will be trained to serve as peer health advocates to aid smokers trying to quit.
• A point of sale/trigger media component, conducted by A&T and Bennett College Students will work with retail and tobacco industry advertisers to deliver messages through community organizations and forums, churches, and student organizations.
• A Web-based component, conducted by North Carolina Central University. Students will access the internet to build online resources for tobacco prevention and cessation curriculum materials. In consultation with tobacco-control experts, students will make evidence-based training materials available to other HBCUs.

The grant is part of the foundation’s Priority Populations Initiative designed to support communities disproportionately impacted by tobacco use and tobacco-related disease. The Priority Populations program supports a broad range of groups that research and develop effective, innovative approaches to help decrease tobacco use.

FEBRUARY 20-21
- Association of Black Nursing Faculty Annual Spring Conference: Exploring Pearls to Grant Writing and Research, R
- “Seven Guatius,” Triad Stage (233 E. Elm, Greensboro), 8 p.m., $5

FEBRUARY 22
- “Seven Guatius,” Triad Stage (233 E. Elm, Greensboro), 3 p.m., $5

FEBRUARY 23
- Deadline to remove incomplete grades received fall semester 2003
- Basic Blackboard Session, IRC 102, 4:15 p.m., R

FEBRUARY 23-27
- Electronics and Computer Technology Demonstration, Price Hall, F

FEBRUARY 24
- Past TimeLine:th, 7th, 8th, . . . Memorial Union-Stallings Ballroom, 7 p.m., F

FEBRUARY 25
- Downtown & Discussions with the Provost, The Oaks, 2-4 p.m., F

FEBRUARY 26
- Nineth Annual Life and Physical Science Research Symposium, Bates Hall and Memorial Union, 8 a.m.-2 p.m., R
- Basic Blackboard Session, IRC 102, 9 a.m.-12 p.m., F
- Essentials for Supervisors Workshop: Discipline and Dismissal/Unlawful Workplace Harassment, 1020 E. Wendover-Room 009, 9 a.m.-12 p.m., R
- Glamourous Awareness in the African American Community: The Sneak Thief of Sight, Noble Hall, 6:30 p.m., F, A

FEBRUARY 26-28
- NSF HBCU-UP 2004 National Research Conference, Memorial Union-Ballrooms, R

FEBRUARY 27
- Deadline to apply for Entrepreneurship Certificate
- Deadline to apply for Waste Management Certificate

MARCH 2
- Skill Building Workshop: Communication and Listening, 1020 E. Wendover-Room 009, 9 a.m.-12 p.m., F, R

MARCH 4
- NSF HBCU-UP 2004 National Research Conference, Memorial Union-Ballrooms, R

MARCH 2-6
- Electronics and Computer Technology Demonstration, Price Hall, F

MARCH 3
- Mid-term grades due

MARCH 9
- Administrative Workshop: Financial Records Systems (FRS) from the Accounting Side, 1020 E. Wendover-Room 007/009, 9 a.m.-12 p.m., F, R
- Essentials for Supervisors Workshop: Performance Management, 1020 E. Wendover-Room 009, 9 a.m.-12 p.m., R
- Glamourous Awareness in the African American Community: The Sneak Thief of Sight, Noble Hall, 6:30 p.m., F, A

MARCH 10
- Spring Break

MARCH 9
- Administractive Workshop: Financial Records Systems (FRS) from the Accounting Side, 1020 E. Wendover-Room 007/009, 9 a.m.-12 p.m., F, R
- Essentials for Supervisors Workshop: Performance Management, 1020 E. Wendover-Room 009, 9 a.m.-12 p.m., R
- Glamourous Awareness in the African American Community: The Sneak Thief of Sight, Noble Hall, 6:30 p.m., F, A

For African Americans, glaucoma is the leading cause of blindness. Glaucoma is also the leading cause of preventable blindness in the United States. At 6:30 p.m.

Thursday, Feb. 26, the School of Nursing will present a free community education program, Glaucoma: The Sneak Thief of Sight, in Noble Hall. You are invited to learn how to protect your vision. Contact: Von Best Whitaker, R.N., (336) 334-7750.

Don’t forget to reserve the residence hall rooms your group/organization (e.g. Alumni Scholars, Teaching Fellows, Chancellor’s Scholars, New Freshmen Honors Program, USDA Scholars, athletes, etc.) needs for the 2004-05 academic year. Submit a letter to the Office of Housing and Residence Life indicating your needs by Monday, March 1. Requests must include the name of your group/organization, number of rooms required, building desired (if applicable) and gender. Accommodations will be made based on availability. Contact: Reginald Wade, (336) 334-7708.

Nominations for N.C. A&T’s Distinguished Service Award, Alumni Excellence Award and honorary degree are now being accepted. All nominations must be received no later than April 1, 2004. Applications, then shared by e-mail to The Committee on Awards and Honorary Degrees, Attn.: Dr. Alton Thompson, Dean, College of Agricultural and Environmental Sciences, Webb Hall. For further details, call (336) 334-7797.

The Office of University Relations, in conjunction with WNA A 90.1 FM, would like to hear about your community outreach, volunteer and civic activities. In turn, they will communicate via various media outlets how the Aggie Family is reaching out for and touching the community. Share your story by contacting D. Christie Lofton at WNA A (336) 334-7936 or loftond@ncat.edu. Thanks in advance for helping to spread the good news about all you do.