REMARKS BY GEORGIA TECH PRESIDENT G. WAYNE CLOUGH
Dedicate Bioengineering and Bioscience Building, October 12, 1999

I am pleased to welcome all of you to the dedication of the Bioengineering and Bioscience Building. Before we get started, I want to recognize a few special guests who honor us with their presence…

This beautiful new facility is a tribute to the power of a great idea. It began five years ago as a proposal to do a $1 million renovation of the Coon Building. Today, we dedicate the spectacular, $30 million building that grew out of that proposal.

But we are celebrating much more than bricks and mortar. Five years ago, we had few faculty in biosciences and bioengineering. We had no School of Biomedical Engineering and no reason to think that we might ever become a leading center of biotechnological research. This building stands as a symbol, an emblem of the strong new education and research programs that we have developed in an amazingly short period of time.

Together with Emory University, we now have an academic department and graduate degree program under the direction of Don Giddens and an outstanding group of faculty, and the only National Science Foundation Center of Excellence in the Engineering of Living Tissues. And we are now positioned as a leading institution in one what many believe will be the most dynamic research field in the 21st century.

The Bioengineering and Bioscience Building gives us the opportunity to open a few pages of what Shakespeare described as “nature’s infinite book of secrecy.” Of all the things we possess in this world, the most fragile, the most elusive, is the one we take the most for granted, and that is life itself.

The human body that each of us took for granted when we got out of bed this morning, is incredibly complex. It has thousands of components that interact in countless, interwoven processes. And even after you discover how to intervene and change one of those processes, it still takes a lot more research to discover all of the ripples and ramifications that will affect the body’s many other systems as a result. Just having a sense of what is going on with all the thousands of human genes in any particular situation is amazing knowledge that is still beyond our grasp, although we are steadily getting closer to it.

Complexities like these make biotechnology a research-intensive industry, with $10 billion spent on research in the United States last year.

In addition to being incredibly complex, the biosciences and bioengineering are fields in which the laws of supply and demand are heart-breaking. People die of diseases waiting for researchers to develop cures and medications. Patients line up for new livers, kidneys, lungs and hearts at the rate of one every 16 minutes, only to die while they wait for the donated organs to materialize. There are 20,000 transplant surgeries in the United States each year, but 65,000 people are waiting.
Because of their complexity and human dimensions, bioscience and bioengineering take patience and a tremendous investment. Each new innovation takes years of testing costing millions of dollars to get to market, and all the while its investors are gyrating between wild enthusiasm and suicidal tendencies.

So, biotechnology is not for the faint of heart. But nobody debates the incredible impact research has already begun to have on health care, and on the economy. Georgia’s biomedical and biotechnology industry has increased by 50 percent in just the past five years, and we now have about 100 companies in our state.

They build on the foundation that Atlanta and Georgia already offer, as home to major health organizations like the Centers for Disease Control, the American Red Cross, and the American Cancer Society, and as home to major research universities like Emory, the Medical College of Georgia, Georgia State and Georgia Tech, whose efforts are coordinated through the Georgia Research Alliance.

The opportunity for Georgia Tech to play a leading role is further enhanced by the intersection between biomedical technology and computer technology. New computerized devices are making medical procedures more accurate and less invasive, as well as speeding up the time and reducing the cost of research.

From computing to chemical engineering, from biology to mechanical engineering, Georgia Tech offers the varied academic disciplines that are converging under the biotechnology umbrella. As a result, we are attracting students who are interested in this new field, and companies who see us as a source for the workforce they need as well as the research they need.

Our brand new graduate degree program in bioengineering already has 30 students, and the undergraduate interest is so strong that we expect to reach 100 graduate students within the next three years. In addition to providing space for these graduate students to work, this new facility also offers interested undergraduate students an opportunity to get a hand in cutting-edge research.

The final feature of this new building that I want to emphasize is the fact that it will not stand alone, but is the first of three buildings designed to operate as a unit. Imagine if you will a second building to the east, the Environmental Sciences and Technology Building, which will soon be under construction; and then soon after that the third building to the north, the Molecular and Materials Science and Engineering Building. Already representatives from other universities are coming to our campus to understand this innovative approach to creating interdisciplinary knowledge from the ground up.

Today we celebrate a building that gives Georgia Tech the infrastructure we need to assume a position of leadership in all aspects of the emerging field of biotechnology – from conducting its research, to educating its workforce, to promoting its contribution to our state’s economy.
We are going to hear from several speakers this afternoon who will capture for us the significance of this building and the future it represents. First, I am going to ask Bob Nerem to briefly describe the research thrusts that will happen here in this building and the people who will drive them. Bob is the director of Georgia Tech’s Parker H. Petit Institute for Bioengineering and Bioscience, which will be a primary tenant of this building. And the concepts this building was designed to express and to serve bear his handprint.

(NEREM SPEAKS)

Thank you, Bob. Now that we have a feel for the research that will take place in this new building, let’s take a look at what that research means to the emerging young biotechnology industry. Bill George is chairman and CEO of Medtronic, Inc., which is a major industry partner with Georgia Tech in this endeavor. Bill…

(BILL GEORGE SPEAKS)

Thank you, Bill. Another very important perspective on bioscience and bioengineering is that of the federal government, which not only provides a significant level of funding for research, but also has responsibility for the inevitable questions of policy and regulation. Neal Lane, Assistant to the President for Science and Technology, had hoped to be with us to discuss this topic, but was called away to another task. And when the President of the United States calls you, you go.

Here to speak in his stead is Arthur Bienenstock, who is associate director for science in the White House Office of Science and Technology Policy.

(BIENENSTOCK SPEAKS)

Thank you, Arthur. As you can see, this new building represents a tremendous opportunity for Georgia Tech to be a leader in the monumental task of engineering the future of medicine and health care.

We have a number of special guests with us this afternoon who helped to bring us to this day, and I want to take a moment to recognize their contributions:

   Jean-Lou Chameau
   Dean Gary Schuster
   Emory University representatives
   Beers Construction representatives
   Architects

I especially want to recognize and thank Karen Ku, the gifted artist who painted the beautiful and creative artwork for this building. Karen combines artistic talent with a special insight into the biotechnology, which comes as a result of being married to David Ku, one of our leading biomedical research scholars.

At this time, I would like to introduce the remaining guests who are seated on the dais, who will then join me in cutting this special ribbon of DNA:
Parker H. (“Pete”) Petit, for whom the Petit Institute for Bioengineering and Bioscience is named, is chairman of the Healthdyne Companies. And his generous support and encouragement are what brought the biosciences and bioengineering to the level of prominence they enjoy at Georgia Tech today.

Bill Todd, president of the Georgia Research Alliance, which is coordinating and promoting biotechnology research in Georgia and contributed $5 million toward the construction of this building.

Pete McTier, representing the Woodruff Foundation, and Peter Katona, representing the Whitaker Foundation, both of which contributed to the cost of construction.

And John Staten, president of the Georgia Tech Foundation, which helped to secure the financial arrangements for the building.

At this time, I would like to invite those who are seated here on the dais to join me in cutting this wonderfully crafted strand of DNA, officially marking the opening of the Biosciences and Bioengineering Building.