I would like to welcome you to Georgia Tech and to this special symposium to launch the Georgia Tech Institute for Health Systems Engineering, which is the newest component in the collaborative endeavor between Georgia Tech and Emory University.

Most people are not used to hearing the words health care in the same sentence with the words Georgia Tech, but, in fact, Georgia Tech has been active in the health care arena for quite some time. Our partnership with Emory University in the Coulter Department of Biomedical Engineering and the Petit Institute of Bioengineering and Bioscience is now among the most highly respected biotechnology programs in the nation. It is also a leader in emerging new fields like bioinformatics, nanomedicine, and personalized treatments.

We are spinning off new biotech companies like CardioMEMS, which just got FDA approval to begin marketing an implanted sensor for ongoing monitoring patients with abdominal aortic aneurysms. And we recently broke ground on Technology Enterprise Park, which is located on the other side of our campus and is designed especially to house biotechnology companies. Our first major tenant will be Alteia Therapeutics.

But even as the spotlight has been focused on these endeavors on the leading edge of innovation in health care, another undertaking was quietly taking shape, as Georgia Tech systems engineers focused an increasing level of their own attention and endeavors on health care.

During 2004, I had the privilege of co-chairing the National Innovation Initiative of the U.S. Council on Competitiveness together with IBM CEO Sam Palmisano. We recognized that the economic competitiveness of the United States in the world economy of the 21st century will depend on our ability to be innovative, and we engaged more than 400 of the nation’s best minds in the process of developing a national innovation action agenda. That effort has been instrumental in helping to spur the President to launch his American Competitiveness Initiative and Congress to consider legislation to improve the national climate for innovation.

I mention the National Innovation Initiative this morning, because as those 400 people worked to shape an innovation agenda for the nation, the dark and tangled thicket of health care kept emerging as an impediment. As a result, leaders from the health care industry were drawn into the process of shaping the innovation agenda. And when we held our Innovation Summit in Washington, D.C. in December of 2004, we had Denis Cortese, president and CEO of the Mayo Clinic, on the program. In the course of his comments, he called for the introduction of systems engineering into medical care to improve both quality and productivity, and he cited Georgia Tech as the only place he knew in the nation where a systems engineering approach was being taken to health care.
So even before we created the Health Systems Institute, we were viewed as a national leader in this emerging endeavor to transform health care. And today, we move that leadership to a new level.

Health care, as all of you know, is incredibly information intensive, but it has lagged far behind other industries in utilizing technology to help it manage that information well and make it accessible to those who need it. Critical time is lost and honest mistakes are made in emergency care, because important information is not accessible. Senior citizens with multiple ailments have multiple doctors prescribing multiple medications, each unaware of what the others are doing. And the thorny question of how the bill gets paid is passed round and round among health care providers, insurance companies, patients, employers, and occasionally government regulators.

If ever there was a case where a systems engineering approach was needed, this is it. Administrative costs now make up about 30 percent of health care costs. Better management through a systems approach could both reduce administrative costs significantly and improve the quality of care.

The goal of the Georgia Tech Institute for Health Systems Engineering is to partner with local, regional, and national health care organizations to develop that systems approach. It is an endeavor that requires a lot of collaboration, which, fortunately, is an area where Georgia Tech excels. We are highly interdisciplinary, tending to deploy our resources around larger questions and opportunities rather than keeping them stove-piped in traditional academic disciplines.

On the Tech campus, this institute will involve the Schools of Industrial and Systems Engineering, Civil and Environmental Engineering, and Electrical and Computer Engineering, as well as the Colleges of Computing and Management, the School of Public Policy, the Georgia Tech Research Institute, and Georgia Tech’s Economic Development Institute.

At Emory, the Schools of Medicine, Public Health, and Nursing, as well as the Winshape Cancer Institute are part of this endeavor. Children’s Healthcare of Atlanta is contributing to the funding of the Institute and partnering with the Institute in several research projects, and a number of other Atlanta-area hospitals are interested in similar collaborations.

The Health Systems Institute will bring together all of these partners, and more still to come, around the challenge of applying systems engineering to health care. It is an endeavor that is critical not only for health care itself, but also for the ability of the United States to compete in the global economy.

We are going to begin this symposium this morning with a keynote address from Newt Gingrich, and it is a great pleasure to welcome him back to Georgia Tech. Newt is a historian who received his master’s and doctorate in modern European history from Tulane and taught history on the faculty of West Georgia College for eight years before he was elected to the United States Congress.

But he has also always had an interest in technology. Back in the days when he was working on his bachelor’s degree at Emory University, he spent a lot of time over here on the Georgia Tech
campus hanging out around Pete Jensen, who basically developed the discipline of computer science here at Tech. So his status around here almost approaches that of an honorary alumnus, and Newt, that means the Alumni Association may have their eye on you as a potential donor.

During his 20 years in Congress, Newt Gingrich developed considerable expertise on several major national issues, and after leaving the House of Representatives, he has continued to pursue improvements to the benefit of the nation. These issues are as varied as national defense, which grew out of his experience as the son of a career soldier, and technology – he is an honorary chair of the NanoBusiness Alliance. He is also chairman of the Gingrich Group, a communications and consulting firm that specializes in transformational change. He is a senior fellow at the American Enterprise Institute in Washington, D.C., and a distinguished visiting fellow at the Hoover Institution at Stanford University.

But one of the biggest focal points of Newt’s attention and considerable intellect is the difficult issue of health care in America. His leadership in Congress helped save Medicare from bankruptcy, prompted FDA reform to help the seriously ill, and initiated a new focus on research, prevention of illness and disease, and wellness. And he has continued to work to improve health care after leaving the House of Representatives.

He serves with former Senator Bob Kerrey as co-chair of the National Commission for Quality Long-term Care, which is working on policy recommendations to transform health care for the elderly and disabled. The goal is to maximize independence and achieve a high quality of life and care for frail senior citizens. He also serves on the board of the Juvenile Diabetes Foundation, and the American Diabetes Association has honored him with their highest non-medical award. He was named Citizen of the Year in 1995 by the March of Dines.

More particular to the point of this symposium, he is the author of *Saving Lives & Saving Money*, a book that describes how to transform health and health care to accomplish both of those goals simultaneously. But he wants to do more than talk about it. He is founder of the Center for Health Transformation, which has as its goal to work for the creation of a 21st century intelligent health system.

Ladies and gentlemen, I am pleased to present Newt Gingrich.