

CHEROKEE FARM

the *innovation* campus

WHERE THE WORLD OF TOMORROW WILL HAPPEN TODAY,

AND THE MOST VISIONARY AND SUCCESSFUL LEADERS

WILL BE AT THE HELM.

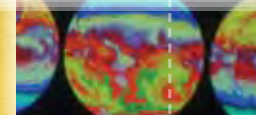
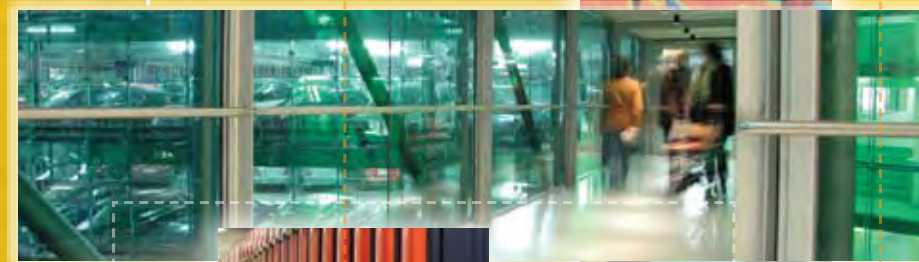
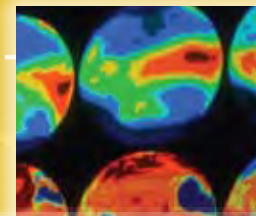
BE ONE OF THEM.

POSSIBILITIES

Cherokee Farm will be more than a research campus. It will be the innovation campus of the University of Tennessee, positioning the university and the state as one of the world's most competitive areas for collaborative research. Drawing on established leadership in neutron research, materials science, computational science, and energy independence and sustainability, Cherokee Farm will strengthen those research agendas while helping maintain America's competitiveness in the innovation economy of the 21st century.

This 188-acre site will engage the expertise of world-renowned researchers and private and public partners through the best resources and a unique interactive and interdisciplinary environment. As a hub of scientific research and innovation, Cherokee Farm will tackle—and solve—some of the world's most complex issues.

**The possibilities are limitless.
The boundaries are nonexistent.**





PARTNERSHIPS

The University of Tennessee—in partnership with Battelle—manages the largest open science laboratory in the nation. The UT–Oak Ridge National Laboratory partnership has a history of success, consistently receiving an “A” in its performance evaluations from the U.S. Department of Energy. Because of the close proximity of UT’s flagship campus in Knoxville to Oak Ridge National Laboratory and to Cherokee Farm, research and academic links are strong.

The partnership has \$3 billion in funding for research, education and service. This is in addition to hundreds of faculty and staff with joint appointments to the university and Oak Ridge National Laboratory, creating interdisciplinary collaboration between scientists, researchers, professors, and partners in their pursuit of big science.



SUPERCOMPUTING

East Tennessee is home to two of the fastest computers on the planet—one of which is the fastest nonclassified computer in the world. The University of Tennessee and Oak Ridge National Laboratory soon will be home to two new machines that **will shatter the petascale barrier**, performing more than a thousand trillion calculations per second. One of these supercomputers was awarded in fall 2007 as part of a \$65 million research grant from the National Science Foundation.

Cherokee Farm provides direct access to these elite, high-performance computing resources—and to one of the largest concentrations of computing expertise in the world—making solutions to global issues like climate change attainable.



NANOTECHNOLOGY

At the heart of Cherokee Farm will be the UT–Oak Ridge Joint Institute for Advanced Materials, site of **the world's most cutting-edge developments in nanotechnology and materials science**. Combining that resource with Oak Ridge National Laboratory's Spallation Neutron Source—the world's most powerful pulsed neutron source and an unmatched tool in analyzing materials on the nanoscale—Cherokee Farm will attract the best scientific minds and research partners.

Possible applications of the research are inspiring: Nanoscale studies allow biomedical researchers to glimpse the body's most fundamental building blocks; materials studies allow for the creation of new materials leading to innovations in energy and environmental science.

The background of the entire page is an abstract, glowing blue energy field. It consists of numerous thin, overlapping lines and filaments that create a sense of movement and depth, resembling a complex network or a field of energy. The colors range from deep navy blue to bright cyan and light blue, with some areas appearing more intense and others more ethereal. The overall effect is one of dynamic energy and scientific exploration.

ENERGY

Increased energy independence, economic development, and environmental sustainability are the core goals of the Tennessee Biofuels Initiative. Through one of the first pilot biorefineries in the nation, Tennessee literally will grow an energy industry from the ground up as bioenergy scientists combine their expertise in converting switchgrass and other plant biomass into ethanol. The biorefinery will be located within convenient driving distance to the Cherokee Farm grounds, providing scientists with continued and easy access to this premier research facility and to its interdisciplinary environment.

The energy research at Cherokee Farm will go beyond the gas tank.

Materials scientists will apply their work to finding new forms of solar conversion and creating effective ways to store and transport hydrogen.



CLIMATE

Cherokee Farm will create groundbreaking solutions to global climate issues. Because the ties between climate, environmental science, and energy are clear and compelling, the vision of Cherokee Farm is one of **interaction, intersection, and collaboration**. For example, by bringing together top plant geneticists from the UT Institute of Agriculture with computational science resources at Oak Ridge National Laboratory and other world-class scientists and business leaders, Cherokee Farm will be positioned to find solutions in preserving—and healing—our global climate.

DEVELOPMENT

In 2007, Forbes ranked Knoxville No. 5 on its “Best Places for Business and Careers” list. The cost of living and cost of doing business are affordable, and the locale could not be more inviting. A thriving university environment, a vibrant downtown arts district, and the gateway to the Great Smoky Mountains—**all are at your doorstep in Knoxville.**

Cherokee Farm is poised to take the city of Knoxville, the state of Tennessee, and the nation to the next level. The development of an interdisciplinary research campus of its caliber will provide economic and scientific opportunities that are truly unique—and uniquely beneficial to the partners involved. Moreover, those who join Cherokee Farm now, at its inception, have an unmatched opportunity to mold the research agenda and the campus’s concept to meet their specific needs.





SUSTAINABILITY

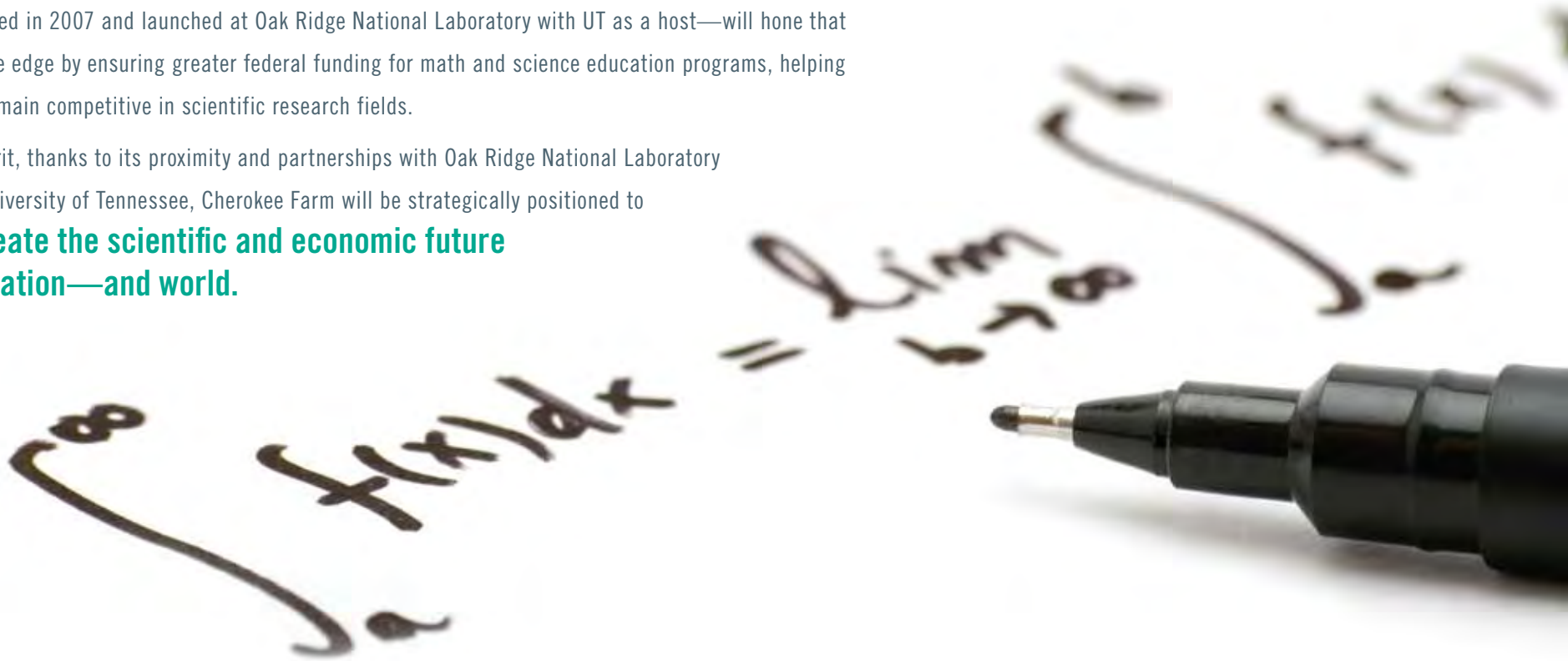
There is great appreciation for the natural beauty of Cherokee Farm and the surrounding area. A major priority in Cherokee Farm's development is that it be "green," designed to fit within the community and the natural environment. Through a low-impact, LEED-certified building plan—geared toward establishing pedestrian-friendly walkways and underground parking, as well as maintaining trees, green space, and recreational areas—**Cherokee Farm will be environmentally responsible** and maintain its aesthetic appeal, while ensuring growth and leadership through innovative research.

ECONOMICS

Keeping our competitive edge is vital in the innovation economy of the 21st century. The America Competes Act—passed in 2007 and launched at Oak Ridge National Laboratory with UT as a host—will hone that competitive edge by ensuring greater federal funding for math and science education programs, helping the U.S. remain competitive in scientific research fields.

In that spirit, thanks to its proximity and partnerships with Oak Ridge National Laboratory and the University of Tennessee, Cherokee Farm will be strategically positioned to

help create the scientific and economic future of the nation—and world.





INNOVATION

Imagine unparalleled access to research tools, connection to a top-tier research university with a comprehensive medical school and hospital, and daily collaboration with the nation's largest open science laboratory. What could you achieve? What *couldn't* you achieve? These opportunities are here for the taking at Cherokee Farm. You are invited to **be part of the vision, the creativity, the innovation.** And you are invited to do more than be part of the future. You are invited to help define what the future is going to be and then build it.



FUTURE

Simply put, Cherokee Farm is where the future lives. It is the home to leading research in supercomputing and networking; neutron science, nanotechnology, and materials science; biomedical research; energy research; and climate and environmental science. Cherokee Farm is where the world of tomorrow will happen today, and the most visionary and successful leaders will be at the helm. Be one of them.

THE FUTURE LIVES HERE.
SHOULDN'T YOU?